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PENNSYLVANIA GAME NEWS

VOL. LXII

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PENNSYLVANIA GAME NEWS

JANUARY 1991

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FEATURES

The Diamond Muskrat 3
By Dave Koppenhaver

PGC Annual Report 7/1/89-6/30/90 6

NEWS

Field Notes 33

Conservation News 38

PGC Retirees 40

In the Wind 64
By J. Scott Rupp

COLUMNS

Ranking Royalty (Another View) 41
By Linda Steiner

Outdoor Wildlife Learning 44
By Bill Einsig

GAMEcooking Tips 46
By Carol Vance Wary

WCO Diary 47
By Keith Snyder

Thornapples 51
By Chuck Fergus

Fun Games 54
By Connie Mertz

Aquatic Arrows (Archery) 55
By Keith C. Schuyler

More Thoughts On Handguns (Guns) 59
By Don Lewis

COVER PAINTING BY LAURA MARK-FINBERG
(Cover Story on Page 5)

Field Notes

“FIELD NOTES” are obviously popular. According to the mail and comments we receive, everybody enjoys reading about the humorous, exciting and interesting experiences encountered by Game Commission officers.

In a sense, Field Notes are older than GAME NEWS itself. The predecessor to GAME NEWS, the Game Commission’s “Monthly Service Bulletin,” an in-house agency newsletter first published (in mimeograph form) in 1929, was largely comprised of Field Note type items. Later, long after the “Monthly Service Bulletin” had been named the Pennsylvania GAME NEWS and made available to the public, on a subscription basis, it contained a “Notes from the Field” section. In September 1950, when GAME NEWS went from a large format to the current—and popular—6 x 9 size, “Notes from the Field” was changed to “Field Notes.”

Early on, items from sportsmen and other readers would be considered for publication in “Notes from the Field.” Since 1950, though, only material submitted by full-time salaried employees—wildlife conservation officers and land management supervisors, for the most part—is published in Field Notes.

Briefly, Field Notes accompany an officer’s monthly reports to the region office. There they are compiled and then forwarded to the GAME NEWS office in Harrisburg. Here we read the notes and select those suitable for publication. Because of our production schedules, it typically takes four months from the time an officer submits a Field Note to when it can appear in the magazine. The most common reason a note is not usable is because it would be outdated by the time it could be published in the magazine.

In the selection process we look for humorous notes and those that contain interesting information about wildlife and outdoor recreation. They are a great way to demonstrate the many responsibilities of our officers. We also use Field Notes to publicize agency programs, such as SPORT, and for explaining laws and regulations, the wearing of a fluorescent orange hat while woodchuck hunting, for example.

As soon as the notes for a given month are selected and edited, a copy is sent to Nick Rosato. Nick has been illustrating Field Notes since the ’50s, and one of the real pleasures of working on GAME NEWS is receiving Nick’s cartoons in the mail and seeing which six he selected for illustration.

As regular readers no doubt realize, some officers have more Field Notes published than others, and it’s not uncommon to receive a letter from somebody asking us to publish more Field Notes from a particular county. Admittedly, it would be nice to publish a more equitable distribution of Field Notes over the course of several months or a year. But in practice, that’s not possible. Nobody is required to write Field Notes, and the simple fact is that some officers are better than others when it comes to recognizing what constitutes a good Field Note and then submitting it to us on a timely basis.

For the past ten years I’ve been the one to select and edit Field Notes, and it’s been one of the most satisfying aspects of the job.

With the changing of the guard that has recently transpired here at GAME NEWS, Scott Rupp, the new associate editor will, for the most part, be making the primary decisions on which Field Notes are published. But regardless of who is making the selections here, or even who is sending Notes in from the field, Field Notes has long been a most popular and useful feature and will no doubt continue to be so. —*Bob Mitchell*



THE FARM SHOW was a big event for city kids back in 1962. My friend and I spent most of our time at the Game Commission booth, collecting two of every handout they had. And we asked questions. The officer manning the booth answered them all, only occasionally rolling his eyes and looking away.

The Diamond Muskrat

By Dave Koppenhaver
WCO, Bedford County

IT WAS 1962, a time when 12-year-old kids could roam around the city without all the worries that would accompany such a trip in this day and age. So it was that during January of that year, at the age of 12, my friend Ken Wilson and I walked from downtown Harrisburg to the Farm Show Building, to see the Farm Show.

The Farm Show was a big event for city kids—it was the only time we got to see a cow. On that trip, though, Ken and I got only as far as the Game Commission booth. We spent the entire day there, asking questions and collecting

two of every handout they had. The officer manning the exhibit politely answered all our questions and only occasionally rolled his eyes and looked away.

It was a great day. Hanging around the Game Commission booth, holding plastic bags with the Game Commission logo on the side, made us feel we were a part of the agency.

Late afternoon found us hurrying back downtown to meet Kenny's mom at the Bell Telephone office and catch a ride home to the suburbs. About half-way to town we stopped at the Harrisburg Hardware Store to warm up. Of

IT'S THE LAW



Question

What type of muzzleloader is permissible to use during the muzzleloader season?

Answer

The rifle must be a single barrel long gun, with flintlock ignition, using a single spherical lead ball 44 caliber or larger and cloth patch. Only iron or open sights are allowed. Maxi and mini balls are prohibited during this primitive season.

course, we immediately went to the sporting goods section. During the walk we had both been reading one of the handouts we had picked up at the Game Commission exhibit. The booklet was about trapping.

Growing up in a metropolitan area left me in awe of anything to do with wildlife. I remember even doubting that many of the furbearers in the booklet we were reading even existed in our area of the state. No one in my family hunted. I had never seen a fox, skunk, opossum or any of the critters the booklet claimed were out there to be trapped. Kenny, on the other hand, had an older brother, a father, and uncles on both sides who were all dyed-in-the-wool hunters.

Ken and I had often talked of how we were going to hunt together as soon as we were old enough. But then that stop at the Harrisburg Hardware Store gave us a great plan. Why wait to go hunting when we could start trapping now? we asked. We pooled our money and bought the least expensive trap they had, a No. 1 Blake and Lamb long spring. It cost 39 cents, plus tax.

Back in those days there was a spring

muskrat season, so we didn't have long to wait to try out our new skills—and skillful we were. During the one-month spring season we actually caught a muskrat. The jumping and hollering Kenny and I did that morning was an inspiration later to be used in Toyota commercials—“Oh what a feeling, trapping.”

We had been keeping tabs on fur market prices for just such an occasion. The big male we had caught had a prime pelt with no bite marks on him from spring fighting. The market price for our muskrat, we figured, was \$1.80—quite a return on our 39 cent investment. As the trappers in the early 1800s, we were about to make our fortune in the fur industry.

Between the two of us, Ken and I managed to get the skin off the muskrat, which we then nailed to a board to dry. We hadn't read enough about skinning, though, and didn't case the pelt as it should have been skinned. Instead, we ended up with a flat diamond-shape hide, nailed to a piece of plywood.

A week after the skin had dried, we took our pride and joy fur of the year to a fur buyer. On the way I think Kenny and I both were mentally spending the \$1.80. The fur buyer was an old man who I was sure had just returned from a Rocky Mountain rendezvous with Jim Bridger himself. His name was Mr. Baum, but because of his white hair and full white beard, everyone called him Old Man Baum.

The fur buying took place in a shed behind his house. Ken and I took our place in line with other trappers who, in turn, approached the buyer's bench with their bundles of fur, much like you would approach a Supreme Court bench. Old Man Baum would look the pelts over real close. He would tug on some, knead others, and then offer a price for the lot. Usually the price was accepted. One trapper dickered about the price, but Old Man Baum pointed out some flaws in his pelts and the price stood firm. The man sold the fur, for Old Man Baum had the reputation of being an honest merchant and a fair

WE STOOD In line behind trappers loaded with fox, raccoon and muskrat pelts. I quickly realized that none had a diamond-shape hide like ours, and I figured that we'd get a lot of money for it since it was the only one in the place.

man to deal with.

As we stood in line behind trappers with bundles of fox, raccoon and muskrats, I noticed right away that none of the others had a diamond-shape muskrat pelt like ours, and I was soon to find out why.

When our turn came Ken and I proudly approached the buyer's bench and laid the diamond muskrat on the table. We spread it out as you would pie dough, to make it look bigger. We smoothed the glistening fur in its natural direction, so it would look its best for Mr. Baum's trained eye.

Old Man Baum eyed us up, then he eyed up the muskrat, then he eyed up us again. I was waiting for him to pick up the fur and feel it, or pull at the guard hairs, and then offer us a price, like he did with all the others. But he did nothing. He just eyed us up and eyed up the muskrat.

I just knew that at any moment he was going to offer us \$1.80, but because we had the only diamond muskrat in



the place, I was prepared to hold out for an even \$2. I desperately wanted to tell Ken not to accept \$1.80 when Mr. Baum's lips started to move.

I could have laughed. For an instant I thought Old Man Baum said 25 cents. Then I could have cried; he did say, "25 cents, boys." He then went on to explain what we had done wrong in skinning the muskrat, which ruined its market value.

So ended our first year on the trapline, but there were many more adventures to be had in the years ahead.

Cover Painting By Laura Mark-Finberg

The red fox, one of the commonwealth's most handsome mammals, is this year's featured subject of the Working Together for Wildlife program. Laura Mark-Finberg's rendering of this furbearer was selected as the winner from among 33 entries. Mark-Finberg, Pequea, began painting wildlife art in 1985, and in her short career she has earned her place among the state's finer wildlife artists. Last year she was the membership artist of the year for Waterfowl USA, and in the past two years she's won best of show awards at two waterfowl festivals. The red fox, Mark-Finberg feels, is one of her favorite subjects to paint. "The colors are easy to capture," she said. The Working Together for Wildlife program is designed to raise money to help fund agency research directed specifically for nongame species. Funds from the sale of WTFW fine art prints and collectible patches go to meet those monetary demands. As in past years, an issue of 600 signed and numbered full color prints are being offered. Image size is approximately 15 x 22½ inches on acid-free 100 percent rag paper. Price is \$125 delivered; add \$97.50 if you want it framed. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.



EXECUTIVE DIRECTOR PETE DUNCAN, Deputy Wildlife Conservation Officer Robert E. Miller, and Southeast Region Director Charles J. Williams pose with the fastigate hornbeam and plaque recently placed at the Middle Creek Wildlife Management Area as a tribute to the corps of volunteer deputy wildlife conservation officers serving the state.

Pennsylvania Game Commission

Annual Report

July 1, 1989–June 30, 1990

EXECUTIVE OFFICE

Peter S. Duncan
Executive Director

DURING THE 1989–90 fiscal year, the Pennsylvania Game Commission entered into many partnerships with conservation groups throughout the commonwealth and nation. Many of these partnerships are old and valued friends, such as Ducks Unlimited. With the ongoing contributions it has made to the acquisition, development and management of waterfowl areas, the DU Matching Aid to Restore States Habitat (MARSH) program continues to expand through the dedicated efforts of its Pennsylvania chapters.

The Pennsylvania Chapter of the National Wild Turkey Federation has increased its support of turkey habitat acquisition to the State Game Lands system and continued support of

professional wildlife management and research of this magnificent woodlands bird. Through grassroots support from the Pennsylvania chapter, Super Fund money is being made available to the Game Commission for important programs and projects throughout the commonwealth.

Land acquisition projects with the Western Pennsylvania Conservancy, the Wildlands Trust, the Nature Conservancy and other interest groups have added thousands of acres to State Game Lands for the enjoyment of all outdoor-oriented individuals.

The cooperation extends to government agencies as well, such as DER's Bureau of State Parks, which has expanded hunting opportunities on Presque Isle, Gifford Pinchot and White Clay Creek state parks and supports the controlled hunts at Ridley and Tyler state parks. The vast majority of state park land, as well as Bureau of Forestry and Corps of Engineers' lands, is open to public hunting.

WCO DAVE KOPPENHAVER and Commissioner George Miller review strategies during the 1990 survey of Pennsylvania's elk population. During the aerial and ground census, 154 elk were found a year ago, a slight increase over the 1988 census figure.

These valuable public lands, along with the Allegheny National Forest, provide some of the most outstanding opportunities for those who want to get off the beaten path.

More than 30,000 public access cooperators allow public hunting on their properties. Without this fine group of private individuals and corporations, it would not be possible to enjoy the outdoors in many areas of the commonwealth.

This past year Pennsylvania experienced the lowest number of hunting accidents since 1918. While this is commendable, we nonetheless must be satisfied with nothing but zero accidents. The secret is still *identify your target*.

Public meetings regarding future bear harvest options provided the Commission and the public an opportunity to exchange ideas on the management of this important species. We appreciate all those who took time to attend the public meetings and send in their comments for inclusion with the testimony.

The work of our deputy wildlife conservation officers, volunteer hunter-trapper education instructors, animal rehabilitators and dedicated employees whose interest in conservation of our wildlife resource is what makes any program successful for the Commission and the commonwealth. Without all these partnerships, we would not have the excellent hunting and trapping opportunities we enjoy in Pennsylvania.

Thanks to all of you who helped make this a fitting year to move into the next decade.

BUREAU OF ADMINISTRATIVE SERVICES

Kenneth L. Hess

Director

This bureau encompasses the Personnel Services (Personnel, Labor Relations, Library), Hunting License, Automotive and Procurement, Office Services and Training divisions, plus the Ross Leffler School of Conservation.

Personnel Services Division

The Personnel Services Division develops, coordinates and directs all statewide personnel management programs and activities in the following major areas: work force analysis and planning; recruitment, selection and placement; classification and pay, benefits, transactions, employee development, retirement counseling, affirmative action, and labor relations, as well as managing the agency's central office library.

There are literally thousands of transactions



accomplished for approximately 700 permanent and 75 seasonal employees each year. This division administers the labor relations activities, including negotiations, management training and contract administration for approximately 11 different employee agreements.

This division operates the library for not only Commission employees, but also the general public. The library contains scientific, technical and general reading material, most of which is related to wildlife, wildlife management, and hunting and trapping.

This division also ensures equal opportunity by having in place a formal comprehensive Affirmative Action Program, and is constantly involved in all aspects of every Game Commission employee's career, either directly or indirectly, from hiring to retiring.

Automotive and Procurement Division

Major program responsibilities: Administration and coordination of agency procurement activities; agency automotive fleet management; risk and management insurance programs; operations and maintenance of Advancement Account for vendor payments under \$1500; state and federal surplus property programs; the contract compliance, contractor responsibility, the Women and Minority Business Enterprise programs and the Waste Management Program.

Office Services Division

This division is responsible for the ordering, stocking and distribution of all office supplies, paper supplies and commonwealth forms used by the Harrisburg office, Game Farms, Howard Nursery, and the Ross Leffler School of Conservation. All Harrisburg duplicating requests are processed through this office, which also compiles statistics for the annual updating of the Data Book. All incoming mail is sorted and distributed by this division. The processing of all outgoing mail to regional offices, Game Commission field personnel, news media, license issuing agents, sportsmen's clubs and the general public, as well as

the maintaining of the mailing lists, is handled here. Messenger service, warehouse storage and distribution are maintained by this division.

Hunting License Division

This division appoints and supervises approximately 1100 issuing agents comprised of county treasurers and private businesses. Monthly reports are received and audited with accompanying revenue (\$24,779,222) deposited into the Game Fund. The License Division oversees these agents to ensure compliance with Game Commission regulations and policies.

The Harrisburg License Division also issues licenses by mail.

Selected agencies at key locations in Ohio and New Jersey have been appointed and continue to serve our nonresident hunters.

The following licenses were issued for the 1989 license year.

	1989-1990*
Adult Resident	909,037
Junior Resident	103,904
Senior Resident	63,425
Nonresident Adult	72,270
Nonresident Junior	2,470
Nonresident 5-Day	3,733
Archery	272,364
Muzzleloading	97,817
Antlerless Deer	683,760
Three-Day Shooting Grounds	3,027
Adult Resident Furtaker	21,604
Junior Resident Furtaker	2,963
Senior Resident Furtaker	1,767
Nonresident Adult Furtaker	123
Nonresident Junior Furtaker	4
Resident Bear	90,633
Nonresident Bear	1,835
Senior Lifetime	2,052
Senior Lifetime Furtaker	57

* Sales through June 30, 1990

Training Division

This division is responsible for directing the centralized agency training function including the management of our training facility, the Ross Leffler School of Conservation. The division assesses training needs and develops, organizes and evaluates training programs for all levels of employees, including our volunteer deputy wildlife conservation officers. Our training facility regularly provides instruction on a variety of technical subjects related to wildlife management as well as ongoing training for managers, supervisors, clerical and other administrative support personnel. Additionally, an out-service training program is in place that enables employees to attend job-related seminars and courses at colleges, universities and other training sources.

In June 1991 our 21st class of Wildlife Conservation Officer Trainees will enroll at our training facility. Approximately 30 trainees will begin an intensive nine-month training pro-

gram encompassing all aspects of wildlife conservation. The program will consist of classroom instruction augmented by field exercises and on-the-job training with experienced field officers. Following graduation, these new officers will be assigned to vacant field positions throughout the commonwealth.

**BUREAU OF INFORMATION
AND EDUCATION
Lantz A. Hoffman
Director**

It's traditional in our annual reports to exploit events of the previous fiscal year, do some show and tell and, from time to time, even a little horn blowing. Suffice to say that during fiscal 1989-90 much was accomplished, yet for various reasons, much went undone. For example:

Many fine, new educational programs such as Project WILD have yet to be used in many Pennsylvania schools. That's not to suggest Project Wild is ineffective; it's just not as effective as it could be with additional program personnel and resources to more fully support it.

Fortunately, Project WILD is incorporated in a number of districts where elementary and secondary teachers use it as a key element in teaching natural sciences. Still, a couple hundred classrooms in a diverse state the size of Pennsylvania is really just a drop in the bucket.

Think of how effective we could be, as sportsmen, if we managed to get Project WILD into the majority of elementary classrooms in the state. We could really expose impressionable youngsters to the truths about wildlife, habitat, and how things are in the real world.

We genuinely suspect that unless the Pennsylvania Game Commission and allied natural resource agencies can turn things around in the next decade, in many instances, our young people will have to rely upon the misinformation generated by anti-hunters and animal rights extremists; the same people who promote the absurd notion humans, even innocent children with cancer, cystic fibrosis, muscular dystrophy and other catastrophic diseases, are only equal (and in some cases not as equal) as research rats.

We're talking about the same groups that recently stopped black bear and mountain lion hunting in California; halted deer hunts in Connecticut, Massachusetts and Maryland; that brought trapping to a halt in New Jersey; and that are jeopardizing moose hunting in Maine—all of which brings us to our point:

Rather than just dwell on achievements of the past year or decade, let us be better prepared for the next 10 years. More often than we care to think, the Pennsylvania Game Commission and, we dare say, the good sportsmen of this state, will be called upon to deal with an increasing nationwide brigade of animal rights zealots.



IN 1989, 38,087 people completed the agency's hunter-trapper education course. In recent years, especially since 1986, when the minimum course length was expanded to 10 hours, the hunter-trapper education courses have included hunter trails, actual shooting exercises, and other outside activities to better prepare students for situations they'll encounter afield.

We will, of necessity, spend inordinant amounts of time and money defending hunting and trapping in the courts. In the end, our future will depend on how well our scientists do their work; how convincing they are in the court room; and on how effective we are in demonstrating to millions of non-hunters (especially young people) that we're right and the zealots are wrong.

To defend our outdoor heritage—our right to pursue traditional hunting and trapping activities—our education programs must become far more sophisticated. In essence, we must significantly enhance wildlife information and education programs through commitment of whatever additional human and financial resources are necessary to defeat the animal rightists at their own game.

Information, education and litigation will be "big ticket" items in the decade of the '90s. But, as sportsmen, we have to be willing to pay for what we believe. The alternative is to roll over and play dead, and that's really not much of an option!

Public Information Division

Requests for information from outdoor writers, broadcasters, editors, illustrators and photographers, specialists in environmental scientific endeavors, and especially those who are relative newcomers to wildlife management continue to tax the division's resources. The increased interest in the outdoors by nearly all

segments of society, prompted by mounting concern over the decline of some wildlife species, contrasts with swelling game populations that are creating nuisance problems at the least, and severe damage situations at worst. This has fueled the demand for information about the agency's programs, plans, activities and other facets of our operations.

In the last two decades, the number of people involved in outdoor communications in Pennsylvania has tripled. What used to be a part-time interest and involvement has become a full-time occupation for a growing number of persons. This has to be a good sign because the more society is involved with the outdoors, and the better informed it becomes, the better it will be for scientific wildlife management.

Especially welcome—but also taxing—are detailed explanations and justifications for agency programs. Often times these requests must also include an in-depth look at reasons for not exploring—or turning away from—suggested alternatives. The greater the thirst for knowledge and the more sophisticated the inquirer, the better the answers have to be. That's good from the agency's perspective.

When the agency's primary communications link was to licensed hunters and trappers, the task was relatively simple. But with the interaction of a growing number of disciplines and personnel, involving all segments of the natural environment, the job has become more



complex. Equally challenging is presenting the facts while countering the animal rights and anti-hunting and anti-trapping movements, which feed upon the lack of knowledge and understanding among the "general public" about the relationship between animals, natural forces, vegetation, land and humanity. Our wildlife managers know how to provide for wildlife, but informing, educating and persuading the uninformed, and balancing the needs and wishes of those with special interests is now a far more challenging aspect of our work—especially when certain segments of society become aroused over an issue.

Efforts are being stepped up to meet the demand for more information, and to satisfy the growing thirst for knowledge about Game Commission activities and programs.

Hunter-Trapper Education Division

During the past year, 38,087 people successfully completed hunter-trapper education courses. Most of those who attended one of the 818 courses throughout the commonwealth were youngsters preparing to purchase their first hunting or furtaker license. Although most of the training was solely through classroom instruction, a number of the courses provided opportunities for students to participate in hands-on live firing or experience a simulated hunting trip via a field demonstration trail. A dedicated corps of 3217 trained volunteer instructors conducted the courses under the supervision of wildlife conservation officers.

Numerous one-day instructor refresher training workshops were held in each of the Commission's six regions. In addition, 31 instructor-coordinators participated in a 5-day comprehensive training course at the agency's Harrisburg training school. Representatives from educational institutions, sporting arms manufacturers, and national and state hunting, trapping and health organizations provided the instruction. Those who attended are now better qualified to assist with instructor and student training in their respective home areas. Another group of instructors will have the op-

THROUGH the agency's annual "Plantings for Wildlife" sales, the proceeds of which are used to support nongame programs, individuals may purchase packets of seedlings and bags of a seed mix specially formulated to attract wildlife.

portunity to attend a similar week-long workshop tentatively scheduled for next year.

Pennsylvania's hunter-trapper education program again attained a "AAA" rating from the International Association of Fish and Wildlife Agencies. It was also selected by the National Rifle Association as one of the country's top 10 programs. Since the inception of mandatory training for first-time license buyers in 1969, the number of hunting accidents in Pennsylvania has declined about 80 percent.

The Hunter-Trapper Education Division assisted a team of Geisinger Medical Center Trauma Surgeons in a cooperative deer hunting accident study. The doctors analyzed deer hunting accident data from the seven preceding seasons and made recommendations for improving deer hunting safety. The division also continues to work with the state chapter of the National Wild Turkey Federation toward reducing the number of turkey hunting accidents, especially those in which hunters are shot in mistake for wild turkeys.

Conservation Education Division

The Game Commission has sponsored Project WILD in Pennsylvania since 1983, and to date, volunteer facilitators have offered more than 200 Project WILD workshops, which were attended by nearly 6000 educators. Project WILD, an internationally acclaimed wildlife education program, is now being offered in every state, most of the Canadian provinces and several foreign countries. Nationwide, over 20 million students, involving all grade levels, have learned about wildlife and the importance of habitat through Project WILD.

Bureau personnel attended an advanced steel shot training session conducted through the Cooperative Lead Poisoning Control Information Program, of which the Game Commission is a member. The workshop was held in East Alton, IL, at the Winchester Group/Olin Corporation facilities. The Game Commission is staying abreast of new non-toxic shot developments, and continues to offer educational programs for interested waterfowlers.

Bureau personnel helped to plan and conduct an educational workshop featuring bats for more than 50 educators. The program was held at Woodward Cave in Centre County and introduced many interesting facts about bats and caves to the workshop participants.

Over 2000 people attended the popular Middle Creek Wildlife Lectures from April through September. In addition, nearly 20,000 persons attended the 3-day Wildlife Art Show held at the Middle Creek Visitor Center.

Nearly 40 Pennsylvania artists attended the Ned Smith Memorial Wildlife Art Seminar, held

SCOTT RUPP was recently named the new associate editor of **GAME NEWS**. Originally from Ephrata, Lancaster County, Scott, for the past four years, was the associate editor of the National Rifle Association's *American Rifleman* magazine.

annually at the Middle Creek Visitor Center. The seminar provides participating artists with valuable information they can use to improve their craft.

Bureau personnel judged the annual FFA Wildlife Conservation Project Program and awarded a total of \$1000 to the state and regional winners.

Numerous bird and mammal specimens were made available to several educational institutions for use in displays and classrooms. This service is possible through the Commission's wildlife salvage permit program for schools and other educational institutions.

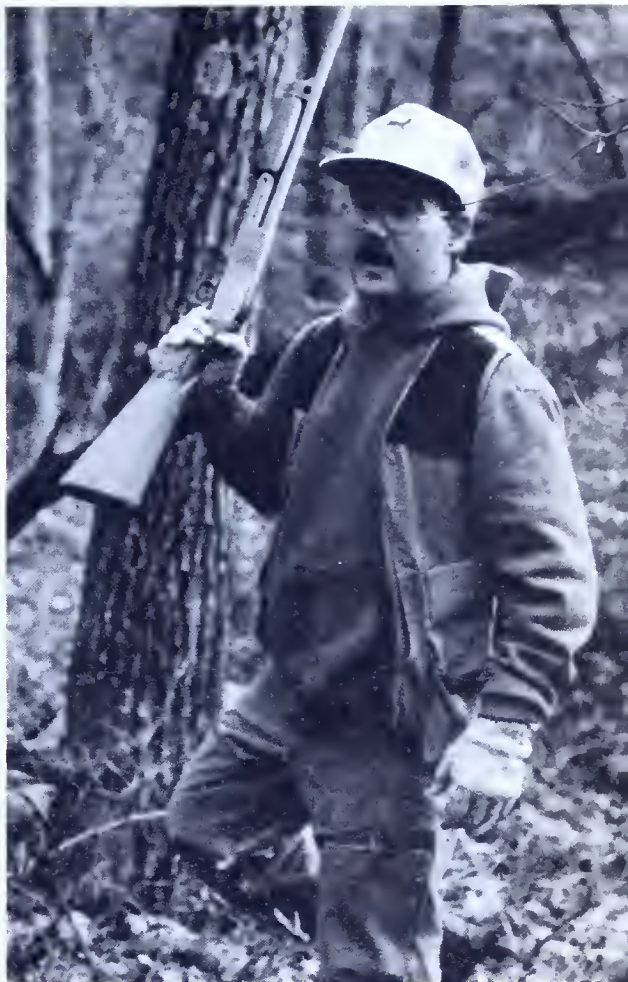
In addition, bureau personnel participated in several county conservation schools, the state conservation leadership school, Earth Day activities, county and state envirothons, deputy wildlife conservation officer training sessions, and several teacher workshops.

The 1990 waterfowl management stamp design contest was won by Tim Hirata, Pittsburgh. Hirata's painting of a pair of canvasbacks was selected from 51 entries submitted by Pennsylvania artists. Since 1983, nearly \$1 million has been raised through the Commission's voluntary duck stamp and print program. The revenues have been used to purchase over 3000 acres of critically needed wetlands in the commonwealth.

The species selected for the 1991 Working Together for Wildlife program is the red fox, and this month's cover features the winning entry in our fine art competition submitted by Laura Mark-Finberg, Pequea. Proceeds from the sale of the fine art prints, embroidered patches and seedling packets provide additional revenues to manage protected wildlife in the commonwealth.

GAME NEWS and Paid Publications Division

Passing from the 1980s into the decade of the '90s during this fiscal year marked a period of transition for **GAME NEWS** as well. Last February Bob Bell retired as **GAME NEWS** editor, a post he held for 23 years. During his tenure he not only made **GAME NEWS** the most successful magazine of its kind in the nation, he also produced Ned Smith's *Gone For The Day*, *The GAME NEWS Treasury*, Jim and Lillian Wakeley's *Birds of Pennsylvania*, Chuck Fergus's *Wingless Crow* and many other publications. Bob spent his last two years or so on the job working on *Pennsylvania Big Game Records, 1965-1986*, and *The Shooter's Corner*, by Don Lewis, both of which have proven to be very popular. Bob Mitchell, assistant editor for many years, was subsequently named as Bell's replacement.



Beginning with the September 1989 issue—in keeping with the Game Commission's conservation philosophy—**GAME NEWS** has been printed on recycled paper. We're pleased to be able to so actively promote the wise stewardship of our natural resources in such a manner.

The official publication of the Game Commission, **GAME NEWS** is the most widely read outdoor magazine in the state. Monthly circulation runs about 150,000. Approximately 30,000 copies per month are given to cooperators in our Farm-Game, Safety Zone and Forest Game programs, as a small token of appreciation for allowing public hunting on their properties. **GAME NEWS** is also given to 6000 school libraries in the state to help students and teachers become familiar with wildlife, conservation and the roles of hunting and trapping as wildlife management tools. Finally, in a long overdue gesture of appreciation, during this fiscal year the agency's volunteer hunter-trapper education instructors began receiving complimentary **GAME NEWS** subscriptions.

GAME NEWS and the many free and paid publications produced by the division remain popular and valuable tools in spreading the agency's conservation message throughout the commonwealth and across the nation, yet it's with great excitement and renewed commit-

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GAME NEWS

For a Friend . . .

ment in this time of transition that we anxiously look forward to the challenges of the new decade and the 21st century.

Audio Visual Services Division

This division provides professional photographic, audio, video, graphic, and technical support to the various bureaus and field regions. The six regional offices have been provided with state-of-the-art, integrated VHS tape player/video projectors and Super VHS CamCorders to continue to shift from 16mm film to video tape. The division continues to provide wildlife and activity programming, slides and prints to the media on request. The broadcast quality video editing suite has been used to produce several public service announcements, a half hour Bald Eagle Recovery program, and numerous video shorts. The photographic laboratory, continuing to improve its services, this year converted to the latest rapid access color print process.

Exhibits and Visitor Center Division

The 1990 major exhibit entitled "Coming Home" highlighted the Commission's successful bald eagle reintroduction program. It was shown at the State Farm Show, Eastern Sports and Outdoor Show, and the Bloomsburg Fair. Scaled down versions of the major eagle exhibit were made for each region and were used at county fairs, local sport shows, mall displays and other public events.

Several display cases at the Pymatuning Visitor Center have been renovated to improve their educational value. The new displays feature the area's wildlife in natural settings, to provide visitors with a better understanding of the habitat requirements for wildlife.

Numerous small displays were designed for use in the regional exhibit program.

BUREAU OF LAND MANAGEMENT Jacob I. Sitlinger Director

The Bureau is continually evaluating its habitat management programs to provide more cost-efficient methods of operation. We have been utilizing mechanical means of cutting areas that otherwise would tax our diminishing labor forces. Areas that contain excessive or undesirable woody growth, no longer of benefit to managed species, are mechanically treated to increase wildlife usage.

Notable management successes have also been achieved by the greater use of prescribed burning to rejuvenate large scrub oak areas and herbaceous openings. The application of selected sewage sludges to specific areas can increase the quality and quantity of vegetative growth and provide needed nutrients, while at the same time provide an environmentally sound disposal area.

Even with all these improvements and benefits, there is a negative side—the use of these lands for illegal dumping of garbage and waste materials. Increased environmental restrictions on landfills drive the cost of dumping upward and, as such, some individuals find the Game Lands a more convenient and cheaper place to deposit these materials. The cleanup costs are excessive and result in great amounts of time and expenses that would have been put to better use. The end result is that the recreational user and the wildlife resources are the losers.

The bureau is committed to managing all lands under its control for wildlife species diversity. This multiple use management will serve not only all wildlife but all recreational users as well.

Federal-State Coordination Division

The Game Commission has designated wetlands as priority acquisition areas throughout the commonwealth. This action was taken to ensure that these valuable wildlife habitat areas would receive protection from development and other acquisition pressures.

During the past fiscal year, the Game Commission, in conjunction with Ducks Unlimited MARSH program, completed acquisition of three wetland areas that will be incorporated into the State Game Lands system.

Benson Swamp, located in Warren County, is a large, diverse wetland complex that currently supports mallards, wood ducks and Canada geese. This 892-acre tract has been designated as State Game Lands 306.

State Game Lands 197 Addition was the purchase of a 137-acre wetland tract in Warren County. The acquisition, an addition to SGL 197, known as Tamarack Swamp, will enable the Game Commission to more effectively manage the area for waterfowl resting, nesting and breeding.

Silkman's Swamp, located in Wayne County, is a 137-acre tract composed of 240 acres of wetlands and 897 acres of upland buffer. The tract presently exhibits above average habitat for waterfowl, ruffed grouse, turkey, white-tailed deer and various species of furbearers. This tract has been designated as SGL 310.

The three acquisitions are within the parameters of the North American Waterfowl Management Plan for protection and enhancement of critical waterfowl habitat. Through the MARSH program, Ducks Unlimited has provided \$305,000 toward the purchase price of the three tracts.

Engineering and Contract Management Division

This division is responsible for planning, designing, specifying, contracting for and inspecting all contracted maintenance work and new construction. In addition, the division provides technical assistance on problems involving general engineering, and prepares feasibility reports and cost estimates for a variety of proposed projects.

This past fiscal year, 10 repair and maintenance contracts were awarded to preserve and enhance structures on Game Lands. A grading plan and layout was produced for use in constructing a rifle range on SGL 300 in Lackawanna County. Registration applications were submitted to DER for all regulated underground fuel storage tanks. A bridge over Dents Run in Elk County, near SGL 311, was constructed in cooperation with DER's Bureau of Forestry. The Engineering Division provided the survey, design, permitting and supervision during construction of the substructure by the Army Reserve.

Engineering surveys were made, and work progresses for providing design information to secure encroachment and impoundment permits for several sites in the northwest region.

Ten dams were visually inspected and formal inspection reports were submitted to DER.

Assistance was provided to the bureau during the planning and construction phases of the Pennsylvania Conservation Corps (PCC)

projects to construct two storage buildings in the Southcentral Region.

Federal Aid and Public Access Division

The Federal Aid in Wildlife Restoration Act (commonly called the Pittman-Robertson Act) has continued to serve wildlife well by providing reliable restoration funding for the improvement, rehabilitation and restoration of wildlife habitat so important to all species. Funds for this program are derived from federal excise taxes on sporting arms, ammunition and archery equipment. Funds are apportioned to states based upon a ratio combining land area, license sales and total population.

Pennsylvania is fortunate to receive the third highest total of this funding. Only Texas and Alaska receive larger totals. Upon approval of project documentation, the Commission expends Game Fund dollars and then requests reimbursement, at a 75 percent level, from the U.S. Fish and Wildlife Service, which administers the program. The Game Commission's reimbursements during this fiscal year totaled \$3,591,120. This funding allows for continued maintenance of many projects on game lands.

The Endangered Species Act allows us to be reimbursed for 90 percent of our expenditures on approved endangered species projects. We received \$30,000 during the past fiscal year from the program.

A grant from the U.S. Environmental Protec-

ALONG WITH the U.S. Environmental Protection Agency and the Chesapeake Bay Foundation, the Pennsylvania Game Commission, through the Streambank Fencing Program, is encouraging landowners to protect streambanks from overgrazing by livestock.



tion Agency, Chesapeake Bay Funds, which was administered through the state DER, allowed the agency to continue construction of streambank fencing projects to keep livestock away from streambanks and out of waterways. This \$200,000 grant allowed more than 40 miles of streams to be protected on 106 separate farms.

Public Access Program

The Game Commission's public access programs continue to provide an increase of hunter access to private lands. The oldest, the Cooperative Farm-Game Program, begun in 1936, has 185 projects in 58 counties. Through it, 21,257 cooperating landowners keep more than 2,477,700 acres open to hunting. We also now have 8501 cooperators, covering more than 1,354,100 acres in our Safety Zone Program. The Forest Game Cooperative Program has 553,719 acres and is helping to protect the landowner against unsportsmanlike acts. Many recreational opportunities were enjoyed by sportsmen on those private lands.

These programs do not give sportsmen unlimited access to the enrolled private lands. Hunters should still contact cooperating landowners for permission and, out of courtesy, let them know who is on their properties.

The Commission continued to provide 10-pound mixed seed packets to landowners interested in devoting a little space for wildlife. The seed mixture of dwarf sorghum, millet, buckwheat and sunflower provides a good source of food for all wildlife and, if properly located on the farm, can provide relief from depredation upon field crops. It is expected that this seed mixture will continue to be provided free of charge to cooperators and for sale to the public.

MODERN MACHINERY, such as the Royer Woodsman, below, is becoming increasingly important in wildlife habitat management. Food and Cover Corps crews are able to now do in a matter of hours and days what used to take months and years to accomplish.



Game Land Planning & Development Division

During the past fiscal year, 1479 acres of herbaceous openings were planted to small grain and grass legume combinations by Food and Cover Corps personnel. All planted grain was left standing for wildlife. An additional 14,075 acres were maintained by mowing. Other treatments included liming 1846 acres and the application of fertilizer on 2446 acres. Winter cuttings of woodland borders totaled 1286 acres, and 12,394 fruit producing trees were pruned. New construction included 15 miles of road, 10 parking areas, 696 nesting structures and 1605 bird houses. Maintenance included 2573 miles of roads, 8222 parking areas and 1160 miles of boundary lines. Sharecropping activity on Game Lands continues to play an important role in wildlife management. We received 7209 bushels of ear corn and 13,521 bushels of shelled corn from sharecroppers. This was in addition to the amount of grain left standing by sharecroppers for use by wildlife.

Howard Nursery

The Howard Nursery provided 5,447,000 tree and shrub seedlings for wildlife habitat improvements on State Game Lands and other public and private lands open to public hunting. The Planting for Wildlife Program continues to be popular. In this fiscal year, 130,455 tree and shrub seedlings were sold to persons interested in providing food and cover for wildlife.

The nursery is growing 35 species of tree and shrub seedlings, including many native food producing varieties.

The wood shop, which continues to be an important part of the nursery, is where all the wooden information signs used on State Game Lands and public access properties are manufactured.

Forestry Division

There were 13,960 acres of State Game Lands designated to receive wildlife habitat improvement treatment through commercial and non-commercial forest management practices during the fiscal year. An additional 945 acres received treatment by spraying to remove ferns which impede forest regeneration.

Commercial sales on 10,086 acres returned \$7,199,473 to the Game Fund, which is an increase of \$405,907 over the previous year's receipts. The average return was \$714 per acre, an increase of \$58 per acre. Local economies were supplied with more than 34 million board feet of logs for lumber and 218,784 tons of pulpwood during the year, while Pennsylvania's hunters, outdoorsmen and wildlife benefitted from the lumberman's activities on State Game Lands.

A road network sufficient to carry the heavy logging equipment and comply with the Clean Streams Law, rules and regulations, was

supervised by the contract officers-in-charge. Logging contractors for the above 88 timber sale contracts improved 31 miles of haul roads, installed 11 miles of new roads, which became food strips after seeding, and placed 170 culverts at an estimated cost to them of \$514,476.

Real Estate Division

During the past fiscal year, an additional 12,271 acres of State Game Lands were acquired in 15 counties.

The total of all miscellaneous operational facility lands, such as the Game Farms, remains at 3226 acres, purchased at a cost of \$314,046.

An additional 18,851 acres were purchased with Project 70 funds during the years 1965-1980. The total area of all Game Commission holdings is now 1,335,334 acres in 280 separate Game Lands in 65 counties.

Our staff of four survey crews perform boundary line surveys for all land acquired by the Commission. They also survey disputed boundary lines and provide topographical surveys. The work of our real estate specialists, draftsmen, abstractor and legal counsel provides assistance in pursuing an aggressive land acquisition program.

Payments in Lieu of Taxes

Local governmental bodies received 60 cents per acre in lieu of taxes, as required by Act 20 of 1984. During the past fiscal year, \$800,148 was divided into proportional payments to the county, school district and township where such lands are located.

Environmental Impact Assessment and Minerals Division

April saw the 20th anniversary of Earth Day come to pass. The environmental movement had come of age in that time. Environmental issues and the management of public natural resources are high on everyone's list of current interests.

The Game Commission has expanded and diversified its role in land use and habitat protection as well, and since 1972 the Division of Environmental Impact Assessment and Minerals has been involved in the review of a wide variety of construction and development projects that impact on Pennsylvania's wildlife resources. Public works projects such as highway construction and flood control impoundments, surface mine and solid waste disposal permit applications, and most requests for permits to build or develop within wetland areas

STATE GAME LANDS 290, Haldeman's Island, in the Susquehanna River north of Harrisburg, is being managed specifically for waterfowl. In coming years waterfowl will receive even more attention in the agency's wildlife management programs.

are reviewed for their potential to affect important wildlife habitats.

The division's staff and members of the regional office and field staffs cooperate with a network of state and federal agencies in these reviews. In our review process we make sure that proper planning and development of these various lands result in no unnecessary losses to the wildlife resource, and also ensure the replacement or reconstruction of important habitats which will be unavoidably lost to construction. No net loss of habitat value is the goal of the Commission's environmental impact review program. Mapping, field studies and report writing are important components of this effort, and Commission personnel have developed several habitat evaluation and protection procedures that are widely used throughout the state.

During the fiscal year, 182 permit applications for surface and deep mine operations, 37 solid waste disposal permits and 35 large non-coal mineral removal projects were reviewed and commented on. Three petitions for the designation of lands unsuitable for surface mining were also studied in the field and reported on. These projects, including other activities attendant to the mining and solid waste disposal industry in Pennsylvania, required 1131 separate permit reviews or responses from the agency.

Proposals for 504 major construction projects were reviewed and commented on at several stages in their planning and development. These projects included highway relocations, flood control and water supply impoundments,



Selective Service System

Young men born on or after January 1, 1960 are required to register with Selective Service within a month of their 18th birthday.

The registration process takes less than five minutes at the post office. A young man fills out a simple form asking only for his name, date of birth, address, telephone number and Social Security number.

Registration helps keep our country prepared with a pool of names to draw from in case of a national emergency... without interfering with people's lives. When you think about it... that's not a lot to ask for a country as great as ours.

**IT'S QUICK. IT'S EASY.
AND IT'S THE LAW.**

PRINTED AS A PUBLIC SERVICE.

present or historic range within the commonwealth. Information for each species includes taxonomy, status, distribution, habitat association, life history and management.

During the past fiscal year, several changes have taken place. The wildlife data base had been maintained on an off-site mainframe computer since its inception. This year, the data base was completely converted to a microcomputer-based system. This conversion has required new software to manage the system, but has eliminated the data storage, telephone and data processing costs associated with an off-site system.

Wildlife conservation officers, land managers, biologists and other Game Commission personnel have helped update species information by reporting more than 200 wildlife observations throughout Pennsylvania. In addition, land managers reviewed and updated species occurrence lists for each county in the commonwealth.

Status and distribution data for approximately 500 species were entered from information gathered over the previous four years. The Pennsylvania Department of Transportation assisted in the acquisition of this information and wishes to use the wildlife data base for environmental review of its highway and bridge projects.

Last year, 28 data requests were received and completed for environmental consulting firms, state and federal environmental agencies, and Game Commission personnel. The Environmental Impact Assessment and Minerals Division has incorporated the data base information into its environmental review process.

BUREAU OF LAW ENFORCEMENT J. R. Fagan Director

SUPPORT SERVICES DIVISION

Administrative Hearings

A total of 72 administrative hearings were requested. Six were denied and 18 failed to appear, resulting in 48 being heard. Six hearings involved the recall of hunting license issuing agents, with five being upheld and one being restored. Two involved bear damage claims, two involved special permits, one involved an internal trial board and one involved confiscation of property. One hearing was scheduled but withdrawn, and one was further appealed to Commonwealth Court. Thirty-four hearings involved review of hunting and trapping privileges revoked as a result of violations of the Game and Wildlife Code. Of those, 27 revocation periods remained as originally ordered, three periods were reduced, one period was increased and three individuals had their hunting privileges restored.

utility line rights-of-way, and wetland encroachment permits.

The division is also responsible for the management and development of mineral resources located under Pennsylvania Game Lands. Revenues produced from active coal removal and oil and gas leases amounted to \$1,548,975 for the fiscal year. In addition, 2386 acres of Game Lands were acquired through coal lease-land exchange agreements, wherein mineral owners exchanged valuable and desired lands which they controlled to the Commission in payment for coal removal leases on selected Game Land sites. The lands conveyed are estimated to have a value of \$673,000.

Wildlife Data Base Division

The Pennsylvania Fish and Wildlife Data Base functions as a source of information for permit reviews, wildlife impact assessment, land use and wildlife management planning, research, and public education. This computerized information system currently consists of 942 species profiles of mammals, birds, reptiles, amphibians, fish and invertebrates with

LAW ENFORCEMENT is a major responsibility of wildlife conservation officers. Last year officers issued 17,562 warnings and successfully prosecuted 9334 cases, 45 percent of which were settled on field acknowledgements of guilt.

Deer Deterrent Fencing

During the fiscal year, 31 applications for fencing for agricultural areas were received. Agricultural areas include general farming and commercial nurseries, orchards and truck patches. All materials, except gates, are furnished to every approved applicant at no charge. Thirteen applications were rejected and four individuals canceled their requests. Sixteen fences were completed. The total expenditure of the materials, including delivery to the landowners, amounted to \$90,104. The funds available for fencing are now being fully utilized due to a 33 percent increase in spending over the previous year.

SPECIAL OPERATIONS DIVISION

Bear Damage

Officers were again busy investigating claims of bear damage to beehives and livestock. A tabulation of reports submitted for claims indicates that 233 beehives and 65 head of livestock were destroyed by bears. The money spent on bear claims amounted to \$21,841. Where applicable, bear deterrent fencing was provided to beehive owners to prevent further loss. This type of electric fence has proved to be successful and will continue to be used to protect beehives. The amount of money spent on bear deterrent fencing was \$2549.

Training

Refresher training programs were held for 58 firearm instructors and 27 unarmed self-defense instructors. These instructors were selected as training officers because of their interest in training and their desire to impart what they learn to the rest of the field force.

Refresher programs are designed to acquaint training officers with new and innovative techniques to be incorporated in formal training for the field force.

Deputy Wildlife Conservation Officers

The Pennsylvania Game Commission is fortunate to have approximately 1000 men and women, from all walks of life, serving voluntarily as deputy wildlife conservation officers. These officers assist our salaried officers with a wide variety of duties and responsibilities. With an assigned area of approximately 335 square miles per district, and literally thousands of people per district, the many varied responsibilities of a wildlife conservation officer are too much for only one person to accomplish.



Throughout the years, the agency has been able to train this volunteer group to be professionals in the wildlife management field. Training is done at district and region levels, so these officers receive a comprehensive understanding of law enforcement, legal procedures, wildlife management concepts, public relations, unarmed self-defense, firearms use and a host of other related agency programs.

This year, for the first time, 66 new deputies were given a 4-day basic training and orientation at Ross Leffler School of Conservation at the Harrisburg headquarters. The new officers were exposed to all aspects of the Game Commission's operations and given basic legal procedure and law enforcement training. The Commission feels this new, 4-day program will lay a solid foundation on which to build future training.

Again, the Game Commission, sportsmen and the general public are fortunate to have such a core of dedicated individuals willing to give of their time and talent to perform these duties.

ADMINISTRATIVE DIVISION

Prosecutions

During this fiscal year, 17,562 warnings were issued for noncompliance of the Game and Wildlife Code, compared to 9334 cases prosecuted. Of the cases prosecuted, 55 percent were handled through the judicial system; the remaining 45 percent were settled by field acknowledgement. Of the 5175 cases handled through the court system, our officers achieved a 90 percent success rate, which we feel is very commendable.

Revocations

Our revocation program has been updated and guidelines developed to ensure uniformity in the suspension of hunting and trapping privileges. This past fiscal year, 1218 persons had their privileges suspended for noncompliance of the Game and Wildlife Code.



FIRST PLACE in the annual deputy shoot, held at Scotia Range on SGL 176, went to the Centre County team of Terry Wills, Dave Montresor, Andrew Hughes and Bill Sipple, above. Terry Wills, right, captured first place in the individual category.



SECOND PLACE honors went to the Butler County team of James Ferguson, Steve Yamnitsky, Bob Rumbaugh and Edwin Marrs, below. Deputy Ralph Youmans, left, took second place as an individual.



THIRD PLACE went to Ralph Youmans, John Erlich, James Bockus and David Hume, below, from Tioga County; third place in the individual category went to Robert Stralt.



Confiscated Items

A new computer program has been developed and instituted which is enabling us to maintain better records of firearms, vehicles and other articles that have been confiscated for violations of the Game and Wildlife Code.

The annual fur sale collected \$27,404, and the confiscated firearms sale collected \$37,099 for the Game Fund to be used for the Commission's many programs.

TECHNICAL SERVICES DIVISION

Permits

The Technical Services Division, along with the regional office staff and field officers, continue to annually process more than 4000 special permits. In addition to those standardized permits, more than 200 special use permits are issued each year for various activities involving wildlife that are not specifically covered in the Game and Wildlife Code.

All first-time applicants for taxidermy, wildlife rehabilitation and falconry permits must successfully pass a required examination. Both taxidermy and rehabilitation examinations are conducted twice a year, while falconry examinations are conducted once, each May.

Fees collected for the issuance of special permits during the fiscal year amounted to more than \$181,000.

BUREAU OF MANAGEMENT INFORMATION SYSTEMS

Lyle Koons, Jr.

Director

The Bureau of Management Information Systems responded to many changes in agency operations over the past year. We also attempted to set a stable course in the bureau for the next four-year period. While we respond to the changing world of work on a daily basis, we must also attempt to maximize the value of our expenditures of sportsmen's dollars.

We implemented the Uniform Equipment Subsystem of our Assets Manager System. We can now keep a perpetual inventory of uniform items on hand in the warehouse, predict re-order times and quantities, keep back-orders current and, most importantly, fill requests for uniform items in one day or over the counter. Early indications are that inventories in regional offices will be reduced as well.

The past year was the first full year of the new Time & Activity Reporting System. Indications are that we have much better information about how we are serving our constituents

with Information & Education efforts. As use of the form expands, other areas of agency operations will have better information as well.

We have continued our efforts to make microcomputer/main computer connections productive and worthwhile. We are now producing the entire shipment of hunting licenses on diskettes so the vendor can automatically send licenses to issuing agents. We are doing more data transfers from the big machine to desktop computers in the wildlife management area so that our biologists can evaluate information and produce statistics from large amounts of data electronically.

In an effort to provide better service to our users, we placed terminals and printers where necessary so that license agents needing orders and Game Commission personnel needing uniform items can obtain their items over the counter in Harrisburg.

We completed an Electronic Data Processing Disaster Recovery Plan, two Automated Technology Multi-Year Plans, and various requests for exemptions to the commonwealth's moratorium on automated technology purchases. The net effect of this moratorium is that we were unable to acquire approximately \$270,000 worth of technology and services, some of which will need to be acquired this fiscal year.

We are evaluating two major projects to improve delivery of services to the agency. The first is a fourth-generation programming language. This product will enable our technicians to write computer programs faster because it requires fewer lines of instructions for the machine. We will select one of two different languages.

The second is a communications front-end processor. If the project is successful, we will be able to eliminate one of two telephone lines to each region. It will also reduce duplicated administrative tasks because we will be able to update information on the Game Commission's computer simultaneously with other computers. An additional benefit will be that all of the terminals and personal computers in the regional offices can be used with any of the big computers to which they are connected.

Our new Assets Management System went into operation on July 1, 1990. Since we had approximately one year's worth of information on automotive and off-road equipment, we began producing reports to help manage the fleet. We improved some computer programs and added others. We had metal foil asset labels produced that contain bar codes so that, sometime in the future, we will be able

Thoughts While Walking

This will remain the land of the free only so long as it is the home of the brave.

—Elmer Davis

to take a physical inventory with a bar-code scanner.

We began the investigation into our mailroom automation project. This effort is very necessary as we are facing a substantial increase in postage rates. If we can produce bar-coded mail to postal service specifications, we can avoid three cents of the proposed five-cent increase. Because we produce about a half-million pieces of mail each year, in addition to nearly two million copies of the GAME NEWS, this project has real savings potential. We hope to have the mailroom automated by July 1, 1991, and GAME NEWS ready when the postal service is equipped to scan such a magazine.

Additionally, on the big computer we modified the Deer Harvest Reporting System to accommodate multiple bonus deer and changed the turkey brood programs to accommodate new reporting requirements. We began program modifications made necessary by a new operating system release, changed the License Revocation System to eliminate indefinite revocations and added two new categories to the Special Permit System. We also started a personnel master file analysis.

On the desktop computing front, we developed a timber sale calculation program and wrote programs for law enforcement's Confiscated Weapons System. The Advancement Account programs were improved, and Lotus 1-2-3 and dBase on all of the desktop computers were upgraded. We developed a Project WILD Facilitators' Directory, wrote a system to track goose blind reservations and produce post cards, and implemented a Share-Cropper Tracking System. The bureau investigated automated land surveying technology and installed 10 additional microcomputers. Bureau staffers provided support to the user community as necessary.

We managed to accomplish these things in the face of a high turnover rate in the bureau. We are making every attempt to recruit and retain well-qualified professionals for the Game Commission but, with competitive forces at work, it is becoming very difficult.

We look forward to the challenges ahead. We continue to search for ways to improve services to those who support us—the sportsmen of the commonwealth.

BUREAU OF WILDLIFE MANAGEMENT

Dale E. Sheffer
Director

The principal functions of the Wildlife Management Bureau includes conducting surveys, inventories and research on wildlife populations, and raising pheasants for distribution throughout the commonwealth. Two divisions—Research and Propagation—make up the bureau.

Bureau personnel are continually challenged to provide the data needed to assess

wildlife population levels and trends, determine hunting impacts on wildlife populations, identify improved habitat management techniques, and answer myriad inquiries received from the public about wildlife. While we don't itemize individual inquiries, several thousand letters and phone calls are answered annually concerning Commission wildlife research and propagation programs. Representatives from the bureau serve on the state Pesticide Advisory and Rabies committees, and on several national and regional programs and organizations.

The bureau employs approximately 90 full- and part-time personnel in its research and propagation programs. A Harrisburg administrative staff of six coordinate bureau operations.

Research Division

This division is responsible for planning, conducting and reporting on wildlife research. This research is aimed at determining the status and trends of wildlife populations, the impacts of hunting and environmental factors, and methods of manipulating habitats to induce desired population responses.

In 1989-90, the Research Division organized and coordinated 55 research studies, surveys and inventories. Of those, 23 dealt with forest species. Two final study reports were submitted. Jerry Wunz, the wildlife biologist in charge of our turkey research activities, retired last year after 30 years of distinguished service to the agency, the commonwealth's sportsmen and our wildlife resources. We received approval to hire two new biologists during the year and interviews were conducted in the spring. In July, Brett Wallingford, a Stroudsburg native working at North Carolina State University, was hired to work in the Farm Wildlife Section, and Dan Brauning, coordinator of the Pennsylvania Breeding Bird Atlas at the Philadelphia Academy of Natural Sciences, was hired in the Endangered and Protected Wildlife Section.

Thanks are again extended to the excellent support and assistance we received from wildlife conservation officers and their deputies, land managers, foresters and forest technicians, food and cover employees, and volunteers.

Statistical and Survey Support

The Statistical and Survey Support Section is responsible for conducting the Game-Take and Upland Wildlife Trend surveys, assisting biologists with project design, data analysis and presentation phases of their research studies. The section coordinates federally administered surveys, such as the Mourning Dove Call-Count, Woodcock Singing-Ground, and National Hunting, Fishing and Wildlife-Associated Recreation surveys. The section also assists with design and analysis of social surveys.

Results of the 1988 Game-Take Survey were

PEREGRINE FALCONS seem to be getting established in Philadelphia. Three pairs nested on bridges spanning the Delaware River, while another, right, nested on a bridge over the Schuylkill River. Birds from this nest had to be moved to a different site, where there was room for them to exercise their wings before attempting their first flights.

published in the March 1990 issue of **GAME NEWS**. More than 21,200 of Pennsylvania's nearly 1.2 million licensed hunters were randomly selected to report the number of animals harvested and county of harvest for 18 small game and furbearer species. The squirrel harvest continued to exceed all species, at 2.3 million taken, while harvests for rabbits and doves exceeded 1.9 million and 1.5 million, respectively. Data collection for the 1989 survey has been completed and is being analyzed, and planning for the 1990 survey is underway.

Beginning in early July and extending into mid-August, six wildlife technicians annually conduct counts of 16 species along 60 10-mile routes for the Upland Wildlife Trend Survey. In 1989, highest counts were recorded for doves (4076), rabbits (2034) and deer (1142). An evaluation of the results and value of this survey is in progress.

The biometrician assisted biologists on numerous projects, including Sichuan pheasant telemetry data analysis, black duck harvest statistics, waterfowl band return analyses, beaver population survey design, bear management options summary and woodcock survey needs. In addition, in an effort to satisfy staff training needs, statistics and radio telemetry workshops were planned.

Wildlife conservation officers conducted 17 Mourning Dove Call-Count Survey routes in June, and 31 Woodcock Singing-Ground Survey routes in April and May to continue efforts to monitor the breeding populations of those two species. The dove index of 10.1 doves per route was slightly above 1989's value of 9.8. No long-term (10- or 25-year) trends are apparent. The woodcock index of 0.85 woodcock per route was higher than the previous year's value of 0.75. However, significant long-term (six- and 23-year) declines are apparent.

The National Hunting, Fishing and Wildlife-Associated Recreation Survey has provided detailed information about recreational uses of fish and wildlife every five years since 1955. Results of the 1985 survey were released in 1989. Planning for the next survey was initiated.

Forest Wildlife

The Forest Wildlife Section is responsible for conducting management and population research and developing management recommendations and plans for deer, bear, elk, turkey, squirrel and snowshoe hare. During the past year, unit personnel worked on 16 proj-



ects. Field work on three grouse habitat management jobs were completed, and interim final reports covering grouse population changes during the first 10 years following clearcutting on small acreages were prepared. The grouse projects will be reactivated following the second cutting cycle, to measure subsequent responses of grouse populations to the next set of clearcuts.

Work was undertaken this past year to develop a black bear video. In cooperation with the Information & Education Bureau, thousands of feet of videotape on the life and habits of black bear were shot. In addition, a draft script for the video was prepared. A short version of the video suitable for schools and other organizations will be prepared. In addition, a full-length feature version suitable for television will be produced. Availability is expected late this year.

Bear hunters harvested a record number of black bear in 1989. Prior to the season, Game Commission personnel captured and tagged 307 black bear. A total of 27.7 percent of those tagged bear was harvested. This is the highest bear harvest rate for the 1980s. Previous harvest rates ranged from a low of 13.1 percent in 1983 to a high of 23.9 percent in 1982. Prior to 1989, the average harvest rate for the 1980s was 19 percent.

Bear management options involving different season lengths, archery hunting for bears, and the use of management units were prepared and presented to the Commission in the fall of 1989. Public hearings on the options were held in each Game Commission region in late January and early February of last year. The results of these public hearings, along with written comments received, indicated the majority of interested parties wanted the season to remain unchanged from the present format. An article outlining the results of the hearings and written comments appeared in the September **GAME NEWS**.

Late last January, Game Commission and

DER Bureau of Forestry personnel conducted a winter elk census. During the elk census, 34 branched-antlered bulls, 12 spike bulls, 88 mature cows and 20 calves were counted. This is the highest number of elk counted since the start of the annual elk surveys in 1971. Resightings of marked elk since 1982 indicate that an average of 89 percent of the elk are counted during the survey.

A summer turkey brood census was conducted by wildlife conservation officers in 1989. Results from this census indicated a 27 percent decline in the number of turkeys seen between 1988 and 1989. But when the average number of turkeys seen on days when turkeys and/or grouse were observed were compared, the average number of turkeys observed increased from 9.54 birds per day in 1988 to 9.67 birds per day in 1989. The ambiguity between total counts and daily averages may have resulted from changes in the amount of time spent in the field during daylight hours by WCOs. Consequently, survey procedures for 1990 were modified to measure daylight hours and daylight miles spent in the field.

During the antlered and antlerless deer seasons, Commission deer aging teams examined more than 30,000 deer. This information was used to estimate harvest rates, sex ratios, survival rates and productivity. The data were also used to estimate the 1989 pre- and postseason deer populations. The postseason or overwinter deer population was estimated at 29 deer per square mile of forest land.

Because the overwinter deer population for '89 was above the established 21 deer per square mile goal, management personnel recommended an allocation of 806,100 antlerless

licenses for last year's antlerless deer season. This allocation was expected to produce an antlerless harvest of 255,000 deer. If net deer production remains unchanged from previous years and the anticipated deer harvest is realized, the 1990 overwinter population will be reduced about 10 percent below 1989 levels.

In addition to their normal research, inventory and management functions, deer management personnel met with the public and other staff members to try to resolve complaints concerning deer damage. The results of these meetings were an increase in the funding for deterrent fencing and the option to extend the antlerless season on farms suffering from deer damage.

Waterfowl and Migratory Game Birds

The Waterfowl and Migratory Game Bird Section continued to be highly committed to waterfowl research, management and survey programs in the state, the Atlantic Flyway and the North American continent. Emphasis on woodcock population monitoring also was maintained.

During this fiscal year, preseason duck banding was resumed and the second year of breeding waterfowl surveys were conducted. Both of these activities are in concert with Atlantic Flyway programs designed to provide realistic estimates of waterfowl produced and harvested in this flyway.

During the 1989 preseason banding period, 1737 mallards, 911 wood ducks, 51 black ducks, 61 blue-winged teal, 12 green-winged teal and four pintails were banded in the state. One breeding waterfowl survey indicated an increase in our resident mallards, and breeding populations similar to 1989 for wood ducks, black ducks and Canada geese. The other breeding survey provided the following estimates of breeding pairs in the state: 56,000 mallards, 37,000 wood ducks and 25,000 Canada geese. Southeastern Pennsylvania had the highest densities of these three species.

Implementation of the North American Waterfowl Management Plan (NAWMP) has been slow but progressing. A draft Pennsylvania Waterfowl Management Plan, incorporating the NAWMP, has been prepared.

The winter waterfowl survey (conducted in January 1990) showed these numbers for Pennsylvania: 7200 mallards, 5900 black ducks, 5900 goldeneyes, 3400 mergansers and 58,000 Canada geese. Most of these figures are increases from 1989. It is important to remember that this standardized survey is conducted only in parts of southeastern and



THE OSPREY hacking project being conducted by raptor specialists from East Stroudsburg University and the Game Commission is continuing. Nine young birds were hacked last year, while 11 young ospreys fledged naturally from seven active nests in the state.

northern Pennsylvania. The winter survey is not a complete statewide waterfowl count.

At the Pymatuning WMA, a Cornell University graduate student completed a research study on Canada geese. The study's objective was to differentiate the abundance of different populations and their respective contributions to the harvest. As expected, resident geese were most common and made the greatest contribution to the goose harvest.

Research efforts have continued on woodcock populations. We banded 74 woodcock and fitted 22 with radio transmitters. Woodcock singing-ground surveys were conducted. We get mixed signals on the population status of local birds: in some places, the numbers are up; in other areas, the populations appear to be down. Overall, the woodcock population has not made a noticeable upswing in the state. Local woodcock remain in the state into mid-November. Considerable habitat data have been collected via our radio-equipped birds. We continue to support the restricted hunting seasons for woodcock.

Section personnel presented a scientific paper on the black duck's status in Pennsylvania at a Black Duck Symposium in New Brunswick, Canada. We also prepared waterfowl species accounts for the Pennsylvania Breeding Bird Atlas, which will be published this year.

Farmland Wildlife

Again in 1990, the major thrust of the Farmland Wildlife Section's activities was research to evaluate the Sichuan/ring-necked pheasant hybrid introductions in Pennsylvania.

Radio telemetry tracking to study nest site selection and brood cover use on the Letterkenny Army Depot and Mercer County study areas was expanded last year. Both wild-trapped and spring-released hybrid hens were trapped and equipped with radio transmitters. Activities were monitored during four diurnal periods to gather data on spring and summer habitat use, especially nest site selection. This portion of the study is being conducted with personnel from the Cooperative Fish and Wildlife Research Unit at Penn State.

Results from telemetry tracking during 1989 and 1990 indicate that approximately 10 percent of the hybrid pheasant nests at both sites are located in active agricultural crop lands, although such lands constitute 35 percent of the area at Mercer and 15 percent at Letterkenny. Preferred nesting covers are reverting lands with a significant shrub component. This characteristic may yield increases in successful nesting over the indigenous ringneck by reducing nest losses due to hay mowing.

Prior to beginning this year's field telemetry studies, tests were conducted at the Loyalsock Game Farm to improve the pheasant trap designs used for capturing birds for this study and to evaluate the methods of attaching transmitters to these birds. This testing re-

sulted in significant improvements in both areas.

Due to the lack of snow cover, no winter census was conducted in 1990. Spring crowing counts were initiated on both study areas, and summer brood surveys were continued. Results of the crowing surveys at Mercer indicated population levels characteristic of first class pheasant range. Those at Letterkenny were characteristic of second class range. Results of the brood surveys indicate production increases of approximately 33 percent from 1988 to 1990.

The final fall releases of Sichuan hybrids were made in 1989 on both study areas. We are now assessing whether these populations are self-sustaining. As part of this assessment, both hens and cocks at Letterkenny were equipped with transmitters in the fall of 1990 to monitor fall and winter cover use. Telemetry studies will be continued through the spring of 1992, and the population trend surveys will be conducted through 1992 and possibly beyond.

Negotiations with Michigan's Department of Natural Resources to secure pure Sichuan breeders are continuing, and we anticipate receiving these birds early this year. If this transpires, we hope to propagate sufficient pure Sichuans to make the first experimental releases on study areas in 1993.

Furbearers

A major effort was made this fiscal year to complete a beaver management plan for Pennsylvania. The plan was devised to enhance wetland habitats created by beaver. The state was divided into six management areas so that harvest goals can be met. Each area was surveyed to determine the number of active and inactive beaver habitats. Beaver populations for each management zone were calculated and harvested goals set. A major objective will be to keep as many beaver dams in an early successional type as possible. Newly built beaver dams containing live trees and shrubs furnish the best habitat for other wetland wildlife such as waterfowl, shorebirds and semi-aquatic mammals. Old dams furnish the least amount of habitat for these wildlife species. The beaver harvest goal will be based upon keeping a select percentage of habitats occupied by beaver. Beaver populations will be allowed to increase in some management areas and decreased or stabilized in others. Improving or maintaining good food conditions for beaver is a key in maintaining a maximum acreage of wetlands for the future.

The number of licensed furtakers in Pennsylvania declined from 38,017 in 1988-89 to 26,518 in the 1989-90 license year. Interest in trapping and hunting furbearers has declined due to low fur prices. The harvest, except for beaver, declined substantially. To learn more about our furtakers in Pennsylvania, a mail survey was developed to determine the num-

ber of trappers, beaver trappers, and raccoon and fox hunters. Questions regarding harvest and methods of taking furbearers were included.

Six to 10 radio-collared bobcats were radio-tracked in northern Lycoming County to determine biological data, home range size, dispersal and habitat use. These data will be used in developing a model to calculate populations for the northern hardwood-transition forest regions of Pennsylvania.

A survey of properties participating in the streambank fencing program in Lancaster County indicated the population of muskrats doubled in one year following fencing. Fencing was used to keep cattle from grazing on and breaking down the streambank. The project is designed to stabilize streambanks and improve water quality. The 1989 survey indicated the fenced banks had become thickly vegetated since 1988. The two- to four-foot high vegetation furnished cover for muskrats, which increased survival. The stabilized banks allowed muskrats to burrow and create dens for raising young.

The howl of the eastern coyote can be heard almost everywhere in Pennsylvania. Hearing or seeing a coyote in Pennsylvania is regarded as quite an experience for most people. Interest in listening to and hunting coyotes is increasing; however, the eastern coyote does get in trouble if it begins feeding on domestic livestock such as sheep. Wildlife conservation officers were surveyed in the fall of 1989 to determine changes in coyote depredation since 1988. There were 14 livestock-related complaints in 1988 compared to 12 in 1989. There were 12 additional coyote-related complaints in 1989 that were unrelated to livestock losses. These complaints ranged from coyote/dog fights to fears of children being attacked. A total of 82 sheep were reported killed by coyotes in 1989, compared to 75 in 1988.

The otter restoration project, funded by the Wild Resource Conservation Fund, under the guidance of personnel from East Stroudsburg and Pennsylvania State Universities, continues to be a success. Otters have been successfully introduced into the Loyalsock, Pine and Kettle creeks. A new site, in the Tionesta Creek area located in northwestern Pennsylvania, was selected in 1989 for a reintroduction effort in 1990. The overall objective of this project is to establish otter populations in each physiographic area of the state.

Endangered Species and Protected Wildlife

One of the primary goals of the Endangered Species and Protected Wildlife Section is to prevent species from declining to the point of being listed as threatened or endangered. One of the important strategies for achieving this goal is to identify decreasing population trends and the reasons for these trends. This is why annual wildlife inventories are important. By

identifying declining species, research and management activities can be prioritized.

Pennsylvania's official list of endangered and threatened birds and mammals was revised this year. New data (collected since the original list was promulgated in 1984) resulting from field surveys, notably the Breeding Bird Atlas and Commission mammal surveys, support the revision. These data were scrutinized by a joint scientific advisory committee consisting of members of the Pennsylvania Biological Survey's Bird and Mammal Technical committees and Game Commission staff. Their recommendations resulted in the addition of four endangered and four threatened species to the following updated list.

Endangered

- Indiana bat
- *least shrew
- *Delmarva fox squirrel
- osprey
- bald eagle
- king rail
- *black tern
- short-eared owl
- *peregrine falcon

Threatened

- *West Virginia water shrew
- small-footed bat
- eastern woodrat
- American bittern
- least bittern
- *great egret
- *yellow-crowned night heron
- upland sandpiper
- *yellow-bellied flycatcher
- sedge wren

*New to list.

The Bewick's wren, previously listed as endangered, was removed from the list because it no longer nests in Pennsylvania. In accordance with new definitions, if the wren is rediscovered it is automatically classified as endangered. The Henslow's sparrow was removed from the threatened species list because it was found to be more abundant than originally thought.

Eighty-eight observers, mainly volunteers, tallied 64 bald eagles during the January 1990 winter survey. This is the highest count since this survey was started more than a decade ago. Last year, nine bald eagles fledged from seven active nest sites in six counties. Four of the nest sites were found in eastern counties. At least five of the seven active nest sites were tended by one or more banded adults. At least three banded parent birds were released by the Game Commission between 1983 and 1989 in the hacking program. Additional banded parents are known to be nesting across the border in New York.

Another endangered bird, the peregrine falcon, is using territories that are wholly or partly

WCO STEVE HOWER, right, Schuylkill County, invited environmental science and biology students from Pine Grove to help with a pheasant release on SGL 160, and then used the opportunity to explain the agency's land acquisition and habitat management programs to the students.

in Pennsylvania. Three pairs are using bridges over the Delaware River. Another pair established a territory in Pittsburgh. But the only pair known to have fledged young nested on a bridge over the Schuylkill River in Philadelphia. The survival of these two young birds was enhanced when a Pennsylvania Game Commission management team moved them from an unsafe nesting site to a nest box with more room for preflight wing exercise.

In the Pocono region, Dr. Larry Ryman from East Stroudsburg University monitored seven active osprey nests. He reported the fledging of 11 young. The lower Susquehanna River now boasts three active osprey nests. During a severe summer storm one of the nests was destroyed. One young fledged from each of the two nests that survived the storm.

During the 1989 and 1990 nesting seasons, 15 great blue heron colonies were surveyed. Thirteen active sites contained 1049 nests. With a high of 264 active nests tallied in 1989, the Brucker Great Blue Heron Sanctuary is the state's largest rookery for this species. A tally of 524 black-crowned night heron nests distributed in three colonies makes this species the second most common colonial waterbird found in Pennsylvania.

With 107 nests, threatened great egrets were found nesting at only two sites. Another threatened species, the yellow-crowned night heron, was found nesting at a single site where four nests were found, down from 10 nests a year earlier.

Wade Island in the Susquehanna River is currently the state's largest rookery with 344 black-crowned night heron and 92 great egret nests.

Volunteers helped complete this state's first grassland breeding bird survey and habitat inventory. Forty-six routes in 29 counties, each consisting of 30 three-minute stops were run. Surveyors tallied 212 pheasants, 20 bobwhite quail, five upland sandpipers, 32 horned larks, four dickcissels, 402 field sparrows, 116 vesper sparrows, 182 savannah sparrows, 249 grasshopper sparrows, 34 Henslow's sparrows, 205 bobolinks, 528 eastern meadowlarks and 270 killdeer. The most common field types found around the survey stops were small grain (10.8 percent coverage), row crops (19.2 percent), mixed hay (21.5 percent), pastures (16.4 percent) and wild meadows (10.3 percent).

More than 100 volunteers and two Game Commission wildlife technicians completed 112 bat activity surveys distributed in 48 counties. Observers tallied an average of 104 passes per site. Highest bat activity was asso-



ciated with forest and wetland habitats. Lowest or zero bat activity was found where cultural (houses, etc.) and openland habitat predominated. Twenty volunteers estimated a total of 10,362 to 12,092 bats exiting buildings, mainly churches. The largest colony contained more than 5000 little brown bats.

Cavity nester cooperators monitored use of a total of 1564 nest boxes of 15 types distributed in 26 counties. Bluebirds used 362 boxes and produced 1396 young. Tree swallows and wrens used 468 and 120 boxes, producing 1333 and 490 young, respectively. Of 46 kestrel boxes, 94 young fledged from 37 boxes. Since 1981, state parks personnel and volunteers have monitored the fledging of 11,198 bluebirds. Last year there were 1724 boxes available in parks, of which 507 were used by bluebirds and 957 by other species.

The eastern woodrat (*Neotoma*) is one of three threatened mammals in the state. Since January 1989, Game Commission employees have verified the presence of *Neotoma* at 31 new sites. This includes the northernmost (Tioga County) and easternmost (Lehigh County) records for this species in Pennsylvania. Most new sites (26 in all) were in Fayette, Indiana and Westmoreland counties.

Propagation Division

During fiscal year 1989-90, the Propagation Division produced more than a quarter-million ring-necked pheasants for release throughout the commonwealth.

The Game Commission continues to operate five game farms in four geographic locations in the commonwealth, at a cost this fiscal year of \$3,022,573. The Eastern Game Farm located in Montgomery County annually produces approximately 38,000 ringnecks. The Western Game Farm in Crawford County produces approximately 45,000 ringnecks. There are two farms in Lycoming County; the Loyalsock Game Farm produces about 45,000 ringnecks, while the Northcentral Game Farm produces 36,000 ringnecks. At the Southwest Game Farm in Armstrong County, production

capability is approximately 35,000 ringnecks.

To reduce the potential for disease problems in our stocked pheasants and the day-old chicks and eggs offered for sale, each game farm maintains a regular regime of blood testing to control and prevent the accidental distribution and release of diseased birds. A 20 percent sample (minimum of 40, maximum of 300 birds per flock) is blood-tested after the chicks are 16 weeks of age. Also, the breeder flock is sampled in the spring prior to egg laying. All blood samples are sent to the Department of Agriculture and tested for poultry diseases. To date, no positive reactors have been found.

The Commission's goal is to produce a quality pheasant that will provide sporting recreational opportunities and if not harvested might survive and reproduce in suitable habitats. Our game farms are continuing to modify rearing procedures and provide a diversified habitat in which free-flying pheasants are raised in an environment compatible with the habitats of selected release sites. Large isolated covered pens allow for the most natural environment economically feasible. Lower rearing densities have reduced competition and minimized stress. Efforts to minimize human imprinting start with the day-old chick in the hatchery and continue throughout the pheasant's life on the game farm. With these procedural changes in rearing, we see our ring-necked pheasants displaying greater vigor.

Post-release dispersal of the birds typically covers a large area. Some of these birds are known to move more than 12 miles. These pheasants tend to be more elusive, display greater human avoidance and seek places to hide in the hunting covert.

This fiscal year the Game Lands Planning and Development Division and the Propagation Division, in a joint effort, developed and implemented new statewide guidelines for pheasant stocking. The number of pheasants allocated to any one county is based on the available acreage of suitable pheasant habitat on public hunting grounds. State Game Lands receive priority for pheasant releases and properties enrolled in the Commission's public access programs receive the balance of the birds. According to our new stocking policy, 40 percent of the total fall allocation are released during the week prior to the opening day of

pheasant season. Two in-season releases are made as well.

The first in-season release is made during the first full week of the season, as close to the weekend as possible, when 35 percent of the fall allocation is turned loose. The remaining 25 percent are released the second week of the season.

The sex ratio of stocked birds is 75 percent males in the male hunting only counties and 75 percent hens in counties where both sexes are legal. Percentages may be adjusted slightly, depending upon the actual number of birds available at the time of release.

During 1989 the Propagation Division released 225,014 ringnecks. In addition to those releases, 6385 ringnecks were released by sportsmen's organizations participating in our day-old chick program. These chicks are raised by the sportsmen's clubs and released on lands open to public hunting. Additionally, 1300 chicks and 150 eggs were given to school groups and 4-H organizations for educational wildlife projects. In addition, 2400 Sichuan/ringneck hybrid pheasants were raised for release on two study areas. The Propagation Division also provided 600 adult pheasants to the Virginia Department of Game and Inland Fisheries. Those pheasants were released in the northern tidewater portions of Virginia as an experiment to determine if ring-necked pheasant populations can be established there.

A total of 23,562 surplus day-old hen chicks and 24,300 surplus eggs were sold to sportsmen, the general public and private propagators, resulting in \$19,108 revenue for the Game Fund.

This fiscal year also brought a Pennsylvania Conservation Corps (PCC) program to our Southwest Game Farm. PCC's purpose is to employ young men and women in work-experience projects that involve labor-intensive activities and provide on-the-job training. Our PCC project consisted of replacing deteriorating quonset brooder houses constructed in the '50s with a newly designed brooder facility. This new brooding facility will assist us in more fully implementing our quality pheasant program at this farm. These new buildings are more labor- and energy-efficient, allowing important rearing procedural changes.

PGC Financial Report

July 1, 1989 to June 30, 1990

Ross E. Starner

Comptroller

The Balance Sheet and the Statement of Unreserved Fund Balance were prepared in accordance with Generally Accepted Accounting Principles (GAAP). The unreserved/undesignated balance in the Game Fund on June

30, 1990, computed on a GAAP basis, was \$39,787,588, an increase of \$6,414,634. This increase is primarily due to revenues earned in excess of expenditures for fiscal year 1989-90. Included was an accrual of a

\$968,075 reimbursement of a portion of fines, fees and costs collected by the Judiciary, initially deposited into the Game Fund, and then paid annually from the Game Fund to a restricted receipt account in the General Fund. Act 64 of 1987 provided that funds deposited into this Judiciary restricted receipt account be used to finance a statewide judicial computer system. The agency's continuing efforts to be excluded from this system came to a satisfactory conclusion in June when Act 59 of 1990 exempted the Game Commission from Act 64's requirements. Total fixed assets reported by the Game Commission as of June 30, 1990, were \$69,462,665. Fixed assets are reported at cost or estimated historical cost; no depreciation is provided. Donated fixed assets are recorded at fair market value at the time of donation.

All other schedules included in this report were prepared on a cash basis combined with an encumbrance budgetary system, and as such are consistent with that of the previous year.

Actual revenue credited to the Game Fund during the 1989-90 fiscal year was \$45,531,190, an increase of \$2,137,641, or 4.9 percent over the previous year's actual cash receipts. The most significant revenue increase was in the refunds, which increased \$1,011,694. This was due to a significant refund from the State Workman's Insurance Fund.

Interest on securities and deposits increased by \$476,155, or a 15 percent increase. The sale of timber and other wood products increased by 6 percent, for a dollar revenue increase of \$405,907.

Actual expenditures and commitments for the current executive authorization totaled \$42,333,459, an increase of \$477,904 from last year. The major increases to expenditures were salaries, wages and benefits, up \$1,420,336. Offsetting this increase were decreases in land purchases and acquisition



costs, down \$810,475, and a decrease in printing and advertising of \$297,864.

The Game and Wildlife Code stipulates that not less than \$1.25 from each resident hunter's paid license fee shall be used solely for the selection, restoration, rehabilitation and improvement of all land under the control of the Commission to provide and improve habitat for the purpose of producing natural propagation of wildlife. The number of resident licenses sold during the 1989-90 fiscal year totaled 1,078,418. This mandated that a minimum of \$1,348,023 be expended for the above purposes. The agency actually expended \$2,712,391 and committed \$826,805 during the fiscal year for these purposes, for a total of \$3,337,105, an excess of \$2,191,173 over the law's requirement.

The new law also states that \$2 of each antlerless license fee be used solely for cutting or otherwise recovering overshadowing tree growth to produce underbrush sprouts and saplings for deer food and cover on Game Lands. Antlerless deer licenses sold during the 1989-90 fiscal year totaled 683,760. This mandated that a minimum of \$1,367,520 be expended for the above mentioned purposes. The agency actually expended \$1,634,166 and committed \$18,245 during the fiscal year for these purposes, for an excess of \$284,891 over the requirement.

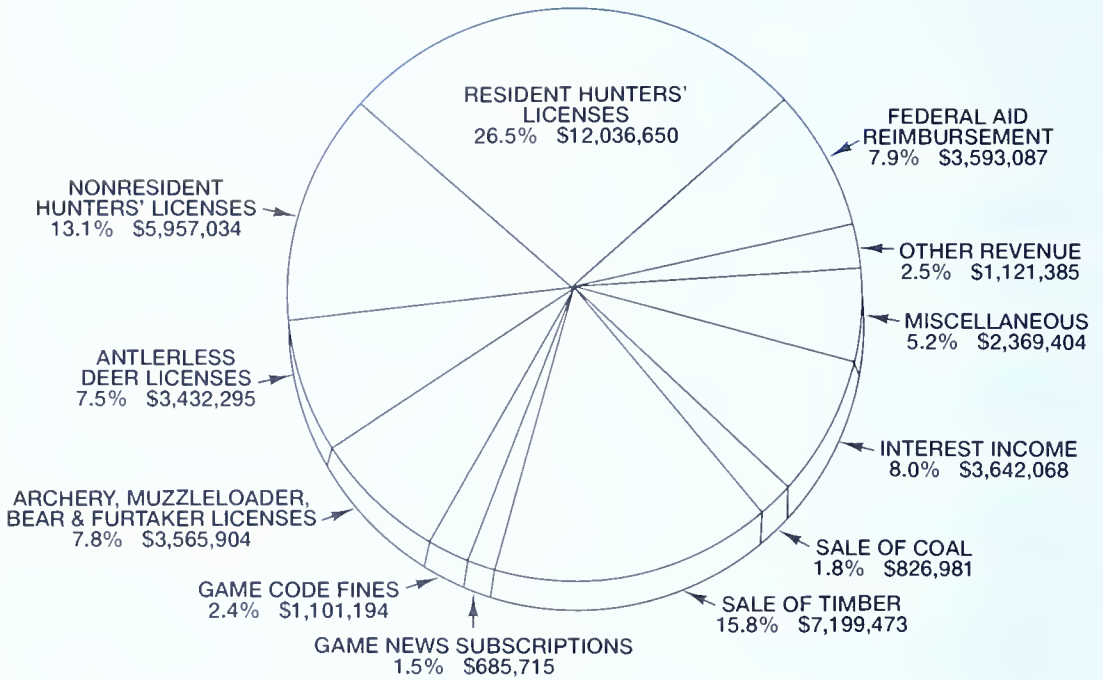
SCHEDULE OF ACTUAL REVENUE DEPOSITED IN GAME FUND FISCAL YEAR ENDED JUNE 30, 1990

LICENSES AND FEES

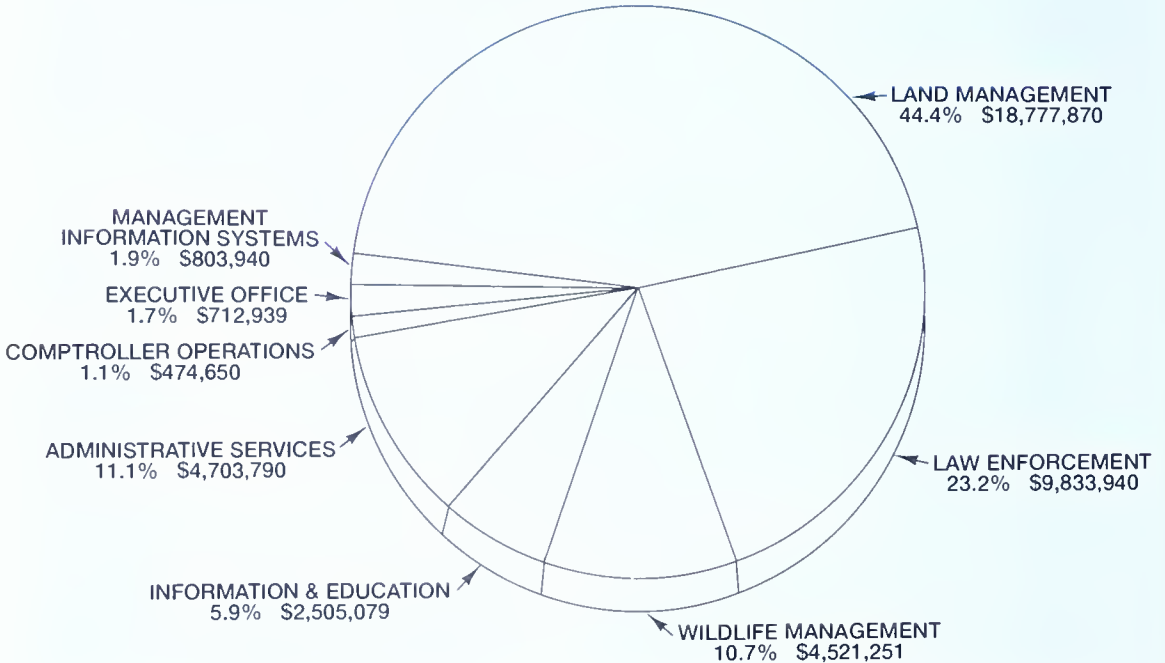
Resident Hunting – Adult	\$10,788,305
Resident Hunting – Junior	502,819
Resident Hunting – Senior	632,843
Resident Lifetime Hunting – Senior	112,683
Nonresident Hunting	5,857,728
Nonresident Hunting – Junior	99,306
Resident Bear	915,537
Nonresident Bear	48,717
Antlerless Deer	3,432,295
Archery	1,428,190
Muzzle Loading Hunting	514,326
5-Day Nonresident Small Game	56,170
3-Day Regulated Shooting Ground	25,346

continued on page 29

GAME COMMISSION REVENUE
\$45,531,190
FOR FISCAL YEAR ENDED JUNE 30, 1990



GAME FUND EXPENDITURES AND COMMITMENTS
\$42,333,459
FOR FISCAL YEAR ENDED JUNE 30, 1990



Resident Furtaker License – Adult	256,961
Resident Furtaker License – Junior	14,859
Resident Furtaker License – Senior	16,802
Senior Lifetime Furtaker License	3,181
Nonresident Furtaker – Adult	9,618
Nonresident Furtaker – Junior	386
Issuing Agents' Application Fee	50,164
Special Game Licenses	225,647
Rights-of-Way	281,835
Total Licenses and Fees	<u>\$25,273,718</u>

FINES AND PENALTIES

Game Law Fines	\$ 1,101,194
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MISCELLANEOUS REVENUE

Interest on Securities & Deposits	\$ 3,642,068
Sale of Timber & Other Wood Products	7,199,473
Sale of Coal	826,981
Ground Rentals & Royalties from Oil and Gas Lease	721,994
Sale of GAME NEWS	685,715
Wildlife Promotional Publications and Materials	111,610
Wildlife Non Game Fund	94,925
Waterfowl Management: Stamp Sales & Art Print	
Royalties	117,556
Sale of Skins and Guns	108,148
Other	
(Game Land map sales, sale of grain and hay, SPORT	
promotional publications, prior year expenditure	
refunds including large SWIF reimbursements)	1,415,011
Total Miscellaneous Revenue	<u>\$14,923,481</u>

TOTAL NONTAX REVENUE	\$41,298,393
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AUGMENTATIONS

Federal Aid	\$ 3,593,087
Sale of Vehicles	171,000
PA Conservation Corps	28,001
Donations	390,299
Endangered Species	30,000
Hunter-Trapper Ed Camp Program	11,120
Youth Shooting Sports Com. Program	9,290
Total Augmentations	<u>\$ 4,232,797</u>

GRAND TOTAL ALL REVENUE IN GAME FUND	<u>\$45,531,190</u>
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GAME FUND
EXPENDITURES AND COMMITMENTS BY PROGRAM AREA
JULY 1, 1989 THROUGH JUNE 30, 1990

Executive Office	\$ 792,592.49
Non-Distributable Comp. Costs	474,650.00
Assisting Other Agencies	33,150.63
Public Works Program	57,064.77
General Administration	2,729,959.10
Personnel Costs	<u>3,225,548.14</u>

Warehousing	64,575.28
Agency Purchasing	198,738.17
Auto Acquisition/Maintenance/Credit Card	345,678.92
Office Maintenance & Service	325,965.62
Training Cost	270,670.72
Licensing Program	862,250.54
800 Telephone Service	70,555.05
Information & Education Adm. & Planning	141,780.00
Public Services	991,918.35
Publications	1,219,529.60
Hunter-Trapper Education Program	304,052.32
Audio-Visual Program	242,205.10
Wildlife Research Program Adm.	346,927.78
Game Farm Operations	2,592,496.70
Wildlife Research Support Services	85,580.12
Forest Wildlife Research Program	491,315.76
Farmland Wildlife Research Program	149,120.48
Migratory Game Bird & Waterfowl Research Program ..	248,941.16
Furbearer Research Program	111,520.39
Endangered, Threatened & Nongame Wildlife Management	165,952.58
Law Enforcement Program Management & Planning ...	1,218,676.11
General Law Enforcement	5,009,925.95
Animal Damage Complaints	736,244.49
Special Permits	34,475.96
In-Service Training—Law Enforcement	481,033.18
Assisting Other Agencies—Law Enforcement	7,631.06
Radio System	412,583.99
General Equipment Maintenance	105,969.54
Damage to Wildlife	15,124.86
Endangered Species & Nongame Law Enforcement ...	12,410.30
Information Systems	973,333.19
Land Management Administration	3,254,779.04
Environmental Review Program	289,469.96
Land Acquisition	5,612,991.83
Howard Nursery Management	331,540.61
Herbaceous Openings	722,994.94
Public Access Programs	1,259,597.11
Forest Management	1,870,851.35
Food Producing Improvements	348,568.47
Game Lands Construction & Maintenance	2,863,747.91
Shooting Range Construction & Maintenance	228,769.85
TOTAL	\$42,333,459.47

GAME FUND BALANCE SHEET, JUNE 30, 1990

ASSETS

Cash with Treasurer	\$	189
Cash in Transit		10,056
Cash-Advancement Accounts		215,277
Temporary Investments		42,194,000
Accrued Interest Receivable		288,023
Due from Other Commonwealth Funds		969,771
Grants Receivable—Federal Government		3,193,164
Fixed Assets		69,462,665
TOTAL ASSETS		\$116,333,145

Vouchers Payable	1,379,383
Accounts Payable and Accrued Liabilities	2,614,306
Due to Other Commonwealth Funds	745,000
Due to Other Governments	102,000
TOTAL LIABILITIES	\$ 4,840,689

FUND EQUITY

Reserved from Current Encumbrances	\$ 2,218,864
Reserve from Prior Encumbrances	7,950
Reserve for Restricted Revenue	15,389
Fund Balance Unreserved/Undesignated	39,787,588
Investment in Fixed Assets	69,462,665
TOTAL FUND EQUITY	\$111,492,456

TOTAL LIABILITIES AND FUND EQUITY..... \$116,333,145

GAME FUND STATEMENT OF UNRESERVED FUND BALANCE FOR THE FISCAL YEAR ENDED JUNE 30, 1990

Fund Balance – Unreserved/Undesignated, June 30, 1989		\$33,372,954
Add: Actual Cash Receipts, July 1, 1989 through June 30, 1990	\$45,531,190	
Revenue earned as of June 30, 1989 and deposited in 1989–90	(2,645,375)	
Revenue earned but not received as of June 30, 1990		
Licenses & Fees	\$ 935	
Miscellaneous Revenue	9,070	
Interest on Short Term Investments	559,137	
PA Wildlife Data Base	51	
Due from Other Funds	969,771	
Due from Federal Gov't (Grants)	3,193,164	
Total Revenue accrued but not received as of June 30, 1990 ..	4,732,128	
Total Revenue Earned during 89–90		47,617,943
Lapses from prior year appropriations		1,196,057
Unreserved-Undesignated Fund Balance Before Commitments and Expenditures		82,186,954
Deduct: Current Year Expenditures and Commitments posted from 7/01/89 through 6/30/90	42,333,459	
Expenditure Accruals as of 6/30/90	3,422,442	
Commitments liquidated against 6/30/90 expenditure accruals	(3,439,447)	
Total Expenditures and Commitments before fiscal year 1988–89 accrual reversal		42,316,454

Reversal of Commitment and Expenditure Accrual for 1988-89	82,912
Fund Balance — Unreserved/Undesignated, 6/30/90	<u>\$39,787,588</u>

**EXPENDITURES AND COMMITMENTS
CURRENT EXECUTIVE AUTHORIZATION
FOR THE FISCAL YEAR ENDED JUNE 30, 1990**

Salaries and Wages	\$19,160,872.25
State share employee benefits	7,359,866.60
Land purchases and acquisition costs	3,920,708.09
Printing and advertising	1,396,514.19
Automotive repairs, supplies, and rentals	1,085,790.63
Payments to local municipalities in-lieu-of-taxes	895,269.09
Maintenance and improvements of building, grounds, and machinery	1,391,544.26
Payments to other state agencies:	
Comptroller services rendered	474,650.00
Auditing services	163,539.18
Civil service & personnel services	56,087.18
Purchasing services	79,711.28
Checkwriting and disbursement services	31,192.18
EDP contractual service	38,621.41
Pheasant feed	443,340.06
Wildlife habitat seedlings and plantings	5,570.31
Purchase of motor vehicles	1,249,443.66
Travel and special conference expenses	698,217.98
Radio and communications equipment purchases and contracted maintenance service	309,978.74
Telephone expenses	406,236.80
Postage	454,557.41
Heating, power and light	460,711.44
Legal, appraisal, and consulting fees	386,656.31
Other supplies and services	272,609.14
Uniforms for game commission personnel	166,652.33
Office equipment, maintenance, rentals, and supplies ..	178,019.77
Purchase of equipment and machinery	322,309.32
Electronic data processing contractual services, rentals, and purchases	424,275.71
Educational supplies, literature, and classroom training equipment	174,581.79
Insurance — auto, liability, fidelity	212,050.14
Clinical services, laboratory and medical supplies	2,812.59
Payments to individuals for bear damage claims	21,034.50
Deer fencing	90,035.13
TOTAL	<u>\$42,333,459.47</u>

**PENNSYLVANIA GAME COMMISSION
SCHEDULE OF FIXED ASSETS
JUNE 30, 1990**

Land	\$55,535,168
Buildings & Building Improvements	10,006,292
Machinery and Equipment	3,921,205
TOTAL FIXED ASSETS	<u>\$69,462,665</u>

FIELD NOTES

It Works

A couple years ago, the Game Commission started to promote streambank fencing. It's a pretty simple concept: keeping cows out of streams and off streambanks stops erosion and improves water quality. Some people took the conservation project a step further by planting their protected banks. After three years of streambank fencing on our property, however, it seems obvious to me that a landowner doesn't have to do anything but let nature take her course. Insects abound, and so many species of flowers and shrubs have appeared that I'm continually referring to my field guides. It appears to me the big challenge now is to convince farmers and other landowners that a lush streambank is beautiful and desirable. Many think a clean streambank is a sign of good management when just the opposite is true.—LMO R.B. Belding, Waynesburg.

Corny Excuses

PHILADELPHIA COUNTY—I guess I'll never understand the trouble some people will go to in order to kill a deer. Some deputies and I were investigating a baiting case on the opening day of archery season. The "hunter" was sitting in an illegal tree stand, some 20 feet from a pile of corn. He claimed he knew nothing about the corn and had not built the tree stand. When we got to where he said his truck was, the man said the vehicle must have been stolen. We called the proper authorities to report the theft, and when the city police arrived, our suspect stuck to his story. But after he realized that no one believed him, he confessed. We arrived at the man's truck and found corn inside.—WCO Richard J. Shire, Philadelphia.

Birds' Best Friends

The close of the late archery and muzzleloading deer seasons marks the time we start checking and cleaning wood duck and bluebird nesting boxes at Pymatuning and Geneva Marsh. This makes me appreciate the efforts of Bob Butts and Frank Tracy, Carnegie, who have built more than 100 wood duck boxes and 600 bluebird boxes, and erected them on area game lands and Farm-Game projects. Thanks again to these two sportsmen and the business concerns that contribute materials for their building projects. You are providing an invaluable service to wildlife.—LMO Keith Harbaugh, Meadville.



Aloha, Pig

ADAMS COUNTY—I just can't seem to get away from roadkilled animals, especially deer, which are a continual problem in the Gettysburg area. My deputies and I have dealt with thousands of them. On a recent trip to Hawaii, one of the first things I saw was—wouldn't you know it—a roadkill. While driving between two large volcanoes, my wife and I came upon a roadkilled wild pig. It felt good to pass by without feeling responsible for picking it up.—WCO L.D. Haynes, Gettysburg.



For the Birds

CENTRE COUNTY—Over the years I've trapped a lot of nuisance bears using a variety of baits, ranging from honey and donuts to meat scraps. But I recently caught my first bear using bird seed.—WCO John K. Weaver, Bellefonte.

It's Not My Fault

WARREN COUNTY—It seems that every time I issue a citation, the defendant comes up with an excuse for breaking the law. One man I apprehended recently for spotlighting after hours claimed that he left camp at two o'clock in the morning to get spring water when his girlfriend (without his permission) plugged in his spotlight and began looking for deer. I wonder if she also told him to stop several times while driving past a field to get a better look.—WCO James W. Egley, Tidioute.

So Long And Thanks

Last August, Melvin R. Weimer, Jr., retired from the Somerset County Food & Cover Crew after 40 years of faithful service. I wanted to pass along my appreciation for the 10 years of dedicated service he has given me. Thanks, Mel, for your cooperation and for making me look so good in my job. You will be missed at work, but may you have a long, happy and prosperous retirement.—LMO Barry K. Ray, Sr., Rockwood.

There's A Better Way

BLAIR COUNTY—The changes in deer bag limits have generated a lot of interest and questions. One day while cruising down the highway, I was hurriedly passed by a car that pulled over some distance ahead. The driver got out and frantically waved and, thinking there was an emergency, I stopped. It turned out the man wanted to know how the bonus deer system worked. I briefly explained the program to him and then suggested that he call one of our toll-free numbers for further information. Believe me, the answers will be the same and getting them is a lot safer than flagging down a WCO on a major highway.—WCO Steve Kleiner, Altoona.



Cattle Rustler

LAWRENCE COUNTY—Farm-Game manager Tony Parrott finally caught the culprit responsible for knocking down his Safety Zone signs on a Wilmington Township farm. Tony was just returning to the farm shortly after posting new signs when he spotted a youngster pulling the signs and stakes out of the ground. Tony blew the horn and yelled, but to no avail. A young heifer, evidently having a great time, had the sign in its mouth and kept tugging until the stake was loose. Tony is now looking for a "cow-proof" system to post his signs.—WCO Gene W. Beaumont, New Castle.

Chain Those Dogs

WYOMING COUNTY—I was on night patrol when a deer leaped off a high bank and crashed into my vehicle. The deer's back was broken, and as I prepared to end its suffering I heard crashing in the woods. Two dogs appeared, and I realized they were the cause of what could have been a very serious accident. Both dogs were wearing collars, but I was unable to get them to come to me. They, unlike the deer I was forced to destroy, ran freely away. I'll bet the dogs' owner was sitting back in a chair the entire time. —WCO William Wasserman, Tunkhannock.

Da!

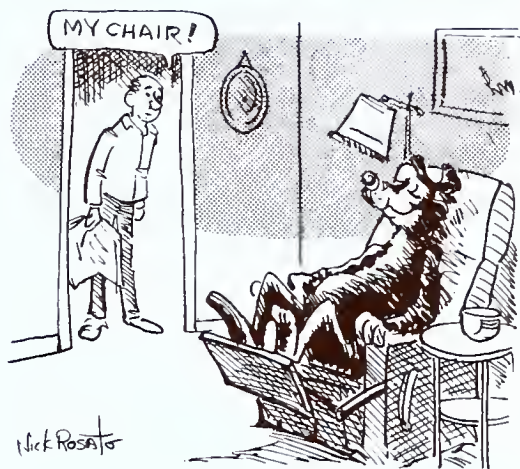
CENTRE COUNTY—Visitors to the Scotia Range may have been surprised to see the names of Natalya Sarkisyan and Olga Peskovaskaya written in the sign-in register. The two Soviet high school students were being hosted by a local girl as they studied at Penn State. When we found that the girls' fathers were hunters, we told them about the Commission and how the agency manages wildlife. We also gave them a tour of a local state forest and game lands, and the Scotia Range—prompting one of our visitors to write “wow” next to her name in the register. The two were amazed at various facets of American life, especially the fact that just about everyone is allowed to hunt. The girls didn't go back to the Soviet Union empty-handed, either; copies of *GAME NEWS* went home with them. —WCO Joe Wiker, State College.

Looking for '91 Models

BRADFORD COUNTY—In the October *GAME NEWS*, WCO Dan Marks wrote a “Field Note” about a bear entering a car dealership in Muncy and smashing windows until it was tranquilized and removed. Dan was puzzled as to what the bear was doing there. It's quite obvious, Dan, he was “window” shopping. —WCO William A. Bower, Troy.

Shameful Sightseers

UNION COUNTY—It continually amazes me that so many people travel long distances and spend money and time to visit our treasured natural and scenic areas, and when they get here they desecrate the areas with discarded trash—everything from cigarette butts to car bodies. —WCO B.J. Schmader, Millmont.



Time to Adjust

LACKAWANNA COUNTY—Bears and more bears. Bears in the morning, bears in the evening, bears at supper-time. The northern part of the county hasn't been noted for its bruin population, but that's about to change. Problems cropped up everywhere in the district: people hand-feeding bears, bears raiding garbage cans and dumpsters, bears in swimming pools, bears eating breakfast at a kitchen table (in a house) and bears stealing food from picnic tables. Apparently, the bears are trying to adapt to human encroachment in their territories. I just hope that people can adjust to living with the bears. —WCO Timothy Conway, Dunmore.

Home Sweet Home

My wife was folding some jeans she had just brought in from the clothesline when she noticed quite a few sticks in one of the pant legs. When we examined them closely, we discovered that a bird had started to build a nest in the jeans. —LMO James E. Deniker, Sandy Lake.

Bluebird Benefactor

GREENE COUNTY—Thanks to an interested sportsman, the county has a new twist in its hunter education program. In his spare time, Leo Wolfe, Jr., Jefferson, makes bluebird nesting boxes from salvaged lumber and then gives them to us free of charge to distribute at our Hunter-Trapper Education classes. At each class we hold a drawing, and the winner receives a box, and an instruction sheet. The winner also receives a card, on which he records nesting data the following year, and then returns to Leo for his records. A perfect example of true sportsmanship at work.—WCO Robert P. Shaffer, Carmichaels.

Bumpity Bump Bump

McKEAN COUNTY—A relative told me that while she and her husband were stationed overseas, a large dog was killed on the highway they took to work. It remained there for days and no one picked it up. Then along came a highway crew, resurfacing the road, and they blacktopped right over the dead dog. All that was left was a bump in the pavement.—WCO John P. Dzemyan, Smethport.

Top Flight Artists

LANCASTER COUNTY—Our county has been blessed with both an abundance of wildlife and wildlife artists. The subject for this year's Working Together for Wildlife line art print is the red fox, and when the submissions were judged, two Lancaster County artists held the top two places. Laura Mark-Finberg, Pequea, was chosen as the winner, and her painting graces this month's GAME NEWS cover; Charles Book, Holtwood, was runner-up. We here in the county appreciate the diversity of our wildlife and the artists who are inspired by it.—WCO Dennis L. Neideigh, Salunga.



More Record Breakers

BEDFORD COUNTY—Last July I wrote about the air speed of the bottfly being clocked at more than 800 mph. From the book *Record Breakers of the Air*, here are a couple more tidbits. The sharpest eyesight belongs to the peregrine falcon, which can see a rabbit five miles away. Ducks and geese are the fastest birds in level flight; the eider duck moves along at 65 mph. When swooping and diving, the swift is king—diving at 106 mph. The title of highest flying bird belongs to a deceased Ruppells vulture that collided with an airplane at 37,000 feet.—WCO David Koppenhaver, Everett.

Fishing for Geese?

LYCOMING COUNTY—Deputy Wayne Peer and I were recently called to rescue a goose from the Susquehanna River, where it had become trapped in the turbulence from a low-head dam. Knowing how dangerous these dams are, we were at a loss as to how to get to the goose. Then Wayne, an avid fisherman, got the idea to use a spinning rod to snag the goose. So with the help of a local fisherman and a deputy waterways conservation officer, Wayne was able to snag the goose and reel it to the edge of the fish ladder, where the animal was then able to swim to safety.—WCO R.L. Stout, Jersey Shore.

What A Day

FOREST COUNTY—Last August I was headed to Buzzard Swamp to check the traps placed there to catch waterfowl for banding. On the way, I saw a black bear sow with two cubs, 100 yards farther on I observed three quail, and as I neared the parking lot, a spike buck and three doe crossed in front of me. When I got to the propagation area, I saw three osprey hunting their breakfast, and was pleased to find a juvenile male wood duck in my first trap. Leaving the propagation area enroute to my second trap, I spied two red-tailed hawks flying along the edge of buckwheat fields. Arriving at the second trap, I found about 300 geese working on the shelled corn placed there to bait the ducks. The trap was empty, but at least I fattened all the geese in time for waterfowl season.—WCO Alfred N. Pedder, Marienville.

Good Ol' Days

ERIE COUNTY—Each year, wildlife conservation officers are required to submit a game population and food conditions report. As I completed the 1990 report for my district, I realized that game populations, overall, are the best I've ever seen. I firmly believe that when it comes to hunting and outdoor wildlife-related activities, these are the "good ol' days." I also know that with continued sound management practices and environmental awareness this will be the case for many years to come.—WCO Jack Farster, Albion.

Bon Appetit

SUSQUEHANNA COUNTY—While driving along with a freshly killed deer on my rack, I fell in behind a wedding party. When the party stopped at a fire hall, the people exited their vehicles and looked at the deer. The expressions on their faces led me to believe that they hoped this wasn't the main course at the reception.—WCO Charles J. Arcovitch, Kinglesy.



Not Exactly Houdini

LYCOMING COUNTY—I recently helped a fellow officer trap a bear that had become a nuisance in a particular township. He had no problems understanding how to set the trap, and when we checked it the next day we found the door down—indicating a catch. But when we got closer we saw the back door of the trap wide open and the bait basket lying outside. It seems that my contemporary had forgotten to lock the baiting door, and when the bear got inside and realized it was trapped it simply found the unlocked door and escaped.—WCO Dan Marks, Mountoursville.

One Won't

ELK COUNTY—For years our hunter-trapper education instructors have stressed the importance of wearing a fluorescent orange hat while hunting groundhogs. I had just finished another hunter-ed class when I was called to investigate a fatal hunting accident. Arriving on the scene, amidst the tears and sobbing, I learned that four young hunters had gone after groundhogs—not one was wearing a fluorescent orange hat. Now those people will spend the rest of their lives trying to forget that nightmare. Please, wear fluorescent orange when hunting, and when hunting woodchucks, make sure it is on your head.—WCO Dick Bodenhorn, Ridgway.



Leonard Lee Rue II

PENNSYLVANIA'S growing white-tailed deer herd has presented a challenge to the state's wildlife managers. A number of possible changes to the way we manage deer, including modifications to bag limits and seasons, are being considered by the Commission. The goal is to maintain a healthy deer population and to preserve a valuable natural resource.

Deer Management Options Presented

AT THE COMMISSION'S October meeting, six deer hunting/licensing options designed to reduce the state's herd were presented for consideration.

The first option would require all hunters, including archers and muzzle-loader hunters, to purchase an antlerless license in order to kill an antlerless deer. The second plan would permit all antlerless deer license holders to take an antlerless deer regardless of whether they shot a buck. Under the third option the four-week archery season would begin one to two weeks later, allowing archers to hunt during the rut.

The fourth option offers three possible season changes. One would involve a new three-day antlerless hunt beginning on what is now the last Saturday of buck season. Another possibility would be a one-day any-sex season on the last Saturday of buck season followed by a two-day antlerless season.

The last possibility under this option would open a three-day any-sex season beginning the last Saturday of buck season.

Option five would continue the deer-damage farm option implemented for the 1990-91 hunting season. The last option would eliminate preferential issuance of antlerless licenses to residents before nonresidents.



State biologist Bill Shope, who presented the plans to the Commission, said while deer are a problem in some areas of the state, they are an important and valuable natural resource—especially to sportsmen. Shope suggested that Commissioners solicit hunters' opinions before making substantive changes to our deer management program.

The Commission will discuss the deer management options when it meets this month. The Commissioners did, however, take preliminary action to explore the possibility of county treasurers issuing antlerless licenses in July instead of October.

Executive Director Pete Duncan commented on steps already taken by the Commission to reduce the deer herd. "The agency has worked diligently to solve the problem. As examples, there have been substantial antlerless license increases, the antlerless deer season has been extended from two to three days, and expansion of the bonus tag program now allows hunters to harvest up to three deer.

"These measures have been somewhat effective in certain counties," Duncan said. "Overall, though, we're

still above deer population goals in many areas and we still have a problem. To further reduce the herd we're going to consider some adjustments to our management plan."

Duncan said that as the Commission debates changes to deer management it will be sure not to alienate rifle hunters in any new strategies. "After all," he said, "rifle hunters are the backbone of the state's deer management program."

Also this month, the commissioners will assess public input concerning proposed changes to deer hunting in the southeastern Pennsylvania and Allegheny County special regulations areas. In 1991, according to staff recommendations, the antlerless deer season will be December 2 through December 21, and then December 26 through January 25. When over-counter sales begin sportsmen could purchase up to possibly four bonus tags (if available) in special regulations counties.

Also being considered will be an expansion of the southeastern special regulations area to include all of Bucks, Chester, Delaware, Montgomery and Philadelphia counties, and that present regulations concerning sporting arms and ammunition be retained.

Operation Chestnut

In an effort to return a lost food-producing tree to Pennsylvania's forests, the American Wild Turkey Society's (AWTS) state affiliate has begun "Operation Chestnut."

In Penn's Woods at the turn of the century the American chestnut was a dominant hardwood species, one found in many different soil types and at all elevations. The tree was a major timber resource and an important food source for wildlife. But the early 1900s saw the arrival of an Asian fungus that caused the chestnut blight, and within 40 years the species essentially vanished from Pennsylvania and the rest of the country as well.

No resistance to the blight has yet to evolve in chestnuts, but a hybrid strain being grown in Tennessee holds the promise of returning the tree to its historical place in our forests. The AWTS program aims to plant 20,000 chestnuts throughout the state's 20 forest districts, in a cooperative effort with Game Commission land managers and DER foresters.

The reintroduction of the American chestnut could prove important to the commonwealth's wildlife, particularly because of what the gypsy moth has done to many of our oak trees. For more information on the chestnut planting program, write Operation Chestnut, 102 Beechwood Dr., Mechanicsburg, PA 17055.



Arthur D. Rockwell
WCO
Troy
6/30/56-12/31/56
6/15/59-11/24/89



Merrill Woomer
Semi-Skilled Laborer
Howard
3/24/70-3/9/90

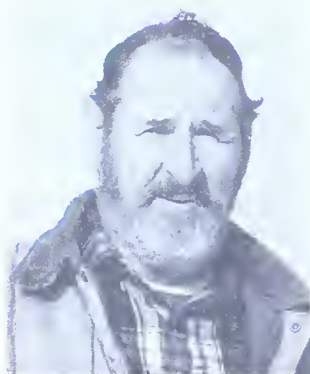


Joseph W. Lafferty
Labor Foreman
Buffalo Mills
2/60-12/89



Edgar Riffle
Semi-Skilled Laborer
Ligonier
7/19/80-9/28/90

P G C



L. Don Leppert
Semi-Skilled Laborer
Osterburg
11/15/65-4/30/73
4/7/75-12/22/89



Robert Bell
GAME NEWS Editor
Mechanicsburg
2/4/67-2/21/90

Retirees



Melvin Welmer
Semi-Skilled Laborer
Somerset
5/10/50-8/31/90



Charles P. Boyer
Semi-Skilled Laborer
Schaefferstown
7/8/78-8/3/90



Edgar N. Diehl
Semi-Skilled Laborer
Shippensburg
7/13/70-12/22/89



Duane Gross
Federal Aid Supervisor
Sandy Lake
3/25/62-12/21/90

In addition to those pictured, the following people also retired in 1990: Faye Hilborn-Bowen, Semi-Skilled Laborer, Royersford, 5/2/77-11/25/57 & 4/15/78-7/12/90; Donna B. Boyer, Custodian, Franklin, 6/9/79-2/6/90; Gerald A. Wunz, Wildlife Biologist, Milroy, 11/9/59-1/5/90; Annabelle C. Resser, Clerk-Typist, Camp Hill, 12/1/66-2/16/90; David C. Snyder, WCO, Irvine, 1965-1990.



EVERY HUNTER dreams of taking a trophy buck, the king of the hill, that he can gaze upon and recall the conclusion of a satisfying hunt. Some sportsmen have the dedication to take a record-book animal or nothing at all, while others are content to fill their tags with a less than spectacular rack and just enjoy good venison. Still, sometimes even the most diehard hunters let their standards slip as the season wears on.

Ranking Royalty

THEY USED to be called "Bragging Bucks," and "Rocking Chair Racks," but today as the nomenclature of the biologist mixes with that of the hunter, they're termed "Alpha Bucks." Whatever the name, these are the "Boss Bucks" on their own turf, the "Bad Dudes" the rest of the whitetail tough guys tiptoe around. They're the deer that every hunter longs to hang on the wall.

To wildlife researchers, the alpha animal in a population is the dominant individual. That may be the leader of a wolf pack, the walrus bull who's harem master, the chicken at the top of the pecking order. With deer, it's the buck whose body size, headgear and attitude

combine to make him "top dog" among his peers.

There's been a lot in sporting literature lately about hunting the Alpha Buck, how to recognize him and his sign, how to get through his senses and

Another View...

by Linda Steiner

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GAME NEWS

For a Friend . . .

defenses. No longer, it seems, is it enough for the trophy hunter to get an excellent set of antlers. Those antlers have to belong to the King of the Mountain, or the Sultan of the Swamp, according to the elevation hunted. Tips and techniques for planning an assault on the monarch and his domain abound in outdoor media.

Realistic

But let's be realistic. If the King isn't available, most of us will take a Jack instead. For the majority of hunters, the alpha buck is the first legal buck they see; they know it might very well be the last. Hunting is hard enough; few will pass the hand and ask for a redeal. After all, they could end up losing the whole pot.

My first buck was taken with a recurve bow, in the straight up and down country of Lycoming County. I'd picked a spot for a stand where rutted deer trails crossed from the mountain-side into a creek meadow. On a sunny day that hillside was in shadow first, and doubly dim under the hemlocks. Deer moved through there early.

I'd hidden behind one hemlock giant and hunkered against a comrade that had fallen beside the trail. For nearly four hours, nothing showed. Ten minutes before quitting time my patience and knees had given out. I was ready to leave. As I began to stand, deer appeared where the trail topped the hill. I knelt again and got an arrow on the string. Two bucks were walking in file, on a course that would pass 10 yards from my stand. My heart thumped in my throat when the second deer stopped and gazed in my direction. The first buck kept walking, as if he had an appointment and was already late.

The standing deer was at least an 8-point; the one on the move was a slender five. I had a decision to make. Should I wait for the big guy, or go for the sure thing? I felt the pressure of the string on my fingertips and drew back. Now, rather than an "alpha," the mounted head of the little 5-point graces my fireplace, in remembrance of a "first" trophy.

But suppose I had waited? Perhaps the hesitation of the larger deer was only temporary, his nervousness fleeting. I might have dragged a bragger from the woods. But if I'd let the little buck go by, the big one might have bolted. There may have been no shot at all and I could still be looking for my first bow-buck.

One archer in my hunting circle played the odds and won. He decided when the season began that he'd take a trophy or nothing. By the last day the second option looked most likely. He climbed in his tree stand one more afternoon, determination still intact.

A half hour before dark, an 8-point came out of the brush, angling toward him. He drew the bow and centered his sights . . . and decided it just wasn't the animal he wanted. He let down and the deer disappeared. The minutes ticked toward quitting time, and he mentally kicked himself for missing his last chance. There was a rustle in the bushes and another deer materialized. This was a bigger buck, a whopping 10-point, with heavy beams and a wide spread. When he saw this animal behind the sights there was no doubt in his mind.

I salute his self control, and acknowledge my own fault. I wouldn't have, couldn't have waited for the second deer. Hunters I know who take trophy size animals have just one thing to say, "If you're going to shoot big bucks, you've got to wait for big bucks." The other side to that is, if you're going to wait for big bucks, you might not shoot anything at all.

Last fall I received a letter from a friend who told us his intentions for bow season. He wrote, "I am raising my

standards for the first two weeks. It won't be spikes to open, but four pointers to open, rack bucks to mount." At least he was realistic that high expectations don't always last under the practicality of the hunt.

Before the season every hunter has a vision of him or herself shooting an alpha buck with antlers so wide they can't be dragged between the trees. But watch how the alpha buck's required antler development is revised throughout the season.

Prior to opening day, that 5-pointer on my wall looks pretty small. It hangs beside a nearly identical 6-point, my husband's first bow-buck. If we have hunters staying with us for the opener, we get kidded the night before about taking such "dinks."

As the days go on, the ribbing disappears, and in the evenings I notice our gunners leaning back in their chairs in renewed contemplation of the racks. Even to me, the mounted heads begin to look top heavy. Sometime during the week, someone will comment, "Those horns aren't bad at all, no, not bad at all."

Before the end of the season, the one-antlered 3-inch spike will take its turn as the alpha buck to most hunters. By the end of the second week, we'll all have decided that an alpha doe wouldn't be bad, and we plan on a big, fat one opening day of antlerless season. By late afternoon the final day of doe season, we've decided the omega doe would be just fine, and a lot easier to drag.

If hunting the true alpha buck, not its late season second-string replacement, is what makes the sport interesting for you, go out and do it. Only you know what kind of hunting success is needed to make you happy. If you take His Majesty, you'll be envied, but be prepared for seasons when your tag will remain on your license, and when you'll not loose an arrow, or fire a shot.

If you, like me, enjoy hunting and shooting action, and venison, you'll want to redefine your trophy terms. I'm not sure my alpha buck for opening day this year will be the one-horn three-inch spike, but I'm not guaranteeing it won't have ascended to the purple by the second Saturday, either.

GAME NEWS

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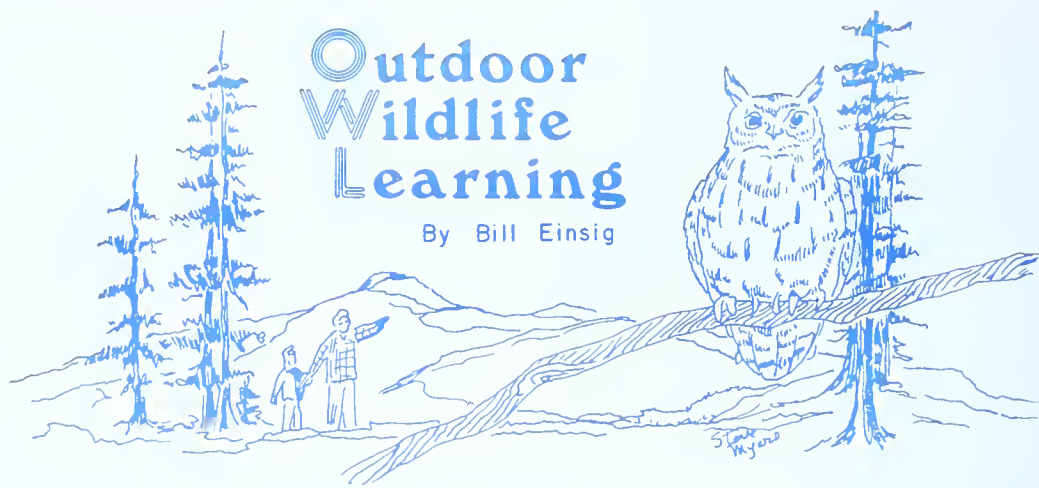
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Outdoor Wildlife Learning

By Bill Einsig



Deep Sleep

Dear Mr. Owl,

I'm curious about the process of hibernation and have a series of questions I hope you'll answer. First, just what is hibernation? B.L. Newcomer, Hazleton.

Hibernation is an adaptation of certain warm-blooded animals to winter survival. It is a period of extended dormancy during which the animal becomes unconscious and its body functions slow dramatically. Body temperatures drop to near freezing or fluctuate with the environmental temperature. The heart slows to only a small fraction of the normal rate and irregular breathing may occur only a few times a minute.

Why do some animals hibernate while others do not?

It's easy to think animals hibernate to escape the cold harsh temperatures of winter. But low temperatures mean less available food at a time when animals lose great amounts of heat energy due to simple exposure. Small, warm-blooded animals lose heat faster than larger animals with more massive bodies. As a result, they must have a ready supply of winter food or reduce their energy needs in some way. Hibernation is one way to reduce needs to a bare minimum.

Many larger animals have more effective insulation to limit heat loss. They also depend on diets that supply their energy needs all winter. An animal that remains alert and active during the winter struggles to balance an energy budget that will

ultimately mean life or death. If a white-tailed deer, for example, uses energy reserves faster than they can be replaced, its body slowly deteriorates. Survival then depends on getting new food supplies in spring, before its weakened body succumbs to starvation and associated problems such as pneumonia. Each winter animals face a risky race to see if stored energy supplies will last until spring brings new food growth.

Certainly, some whitetails die each year as they lose this race, but most are successful and the species, in general, does quite well with this sort of adaptation to winter food shortages. Other species have a much more difficult time, and the odds are often stacked against them. Shrews, for example, can starve to death in a matter of hours, even in summer, if they fail to find the amount of food they need. As a result, some mice and other hibernators have evolved the ability to turn the body nearly "off" and thereby reduce their energy needs to a bare minimum.

Hibernation is, therefore, one mechanism designed to deal with food shortages by reducing the body's demand. As this demand by the body tissues drops, delivery systems involving the heart and lungs can slow to deliver only as much food and oxygen needed to hold off the onset of freezing.

Which animals hibernate?

Most true hibernators are rodents such as woodchucks and jumping mice. Most bats are also familiar hibernators.

A few birds are able to slip into a dormant state that conserves energy and is very similar to mammal hibernation. Hummingbirds, whippoorwills and some swifts exhibit this ability but more often on a daily basis rather than a seasonal basis. For example, hummingbirds are able to "turn back" their metabolic activity and allow body temperatures to fluctuate with environmental temperatures as they sleep each night.

Do any cold-blooded animals hibernate?

The term "hibernation" is reserved for this peculiar dormant period in warm-blooded animals—mammals and birds. An important characteristic of the hibernation process is that it involves the ability of the animal to "turn down" the thermostat that maintains a relatively constant, high body temperature. Cold-blooded animals, by definition, don't have such a thermostat and therefore cannot experience true hibernation. The term "torpor" is used more often to describe this dormancy in cold-blooded animals.

Many cold-blooded animals do exhibit periods of dormancy in relation to temperature or drought. Certain reptiles and frogs burrow deeply in mud and become torpid to escape low temperatures or drying conditions. Of course, many invertebrates form cysts encased within thickened, protective walls to withstand unfavorable conditions. Such cysts often remain viable for years so that the return of favorable conditions initiates a rebirth of activity, growth and reproduction.

Many insects spend the winter in a dormant state which may be as necessary to their normal life cycle as it is as a survival mechanism. Exposure to freezing temperatures stimulates the development to the next life cycle stage in many insects. Some moths, for example, must experience exposure to cold in order to develop normally from pupa to adult. Woolly bear caterpillars, another moth, spend the winter as a dormant caterpillar before they pupate in the warmth of spring.

How does hibernation compare to estivation and winter sleep?

Estivation is a form of dormancy that occurs during the summer and is usually an adaptation to survive high temperatures, drought or lack of food. Frogs in a drying pond might estivate in layers of mud, and grassland ground squirrels



might estivate to escape the famine caused by the lack of green plant food. In such cases it is the return of water to the pond, or rainfall to the grassland, that triggers arousal from the dormant state.

Winter sleep is another type of dormancy, similar in some respects to hibernation. However, because it does not involve a radical drop in body temperature, heart rate or respiration rate, it is usually considered different from true hibernation.

Bears, skunks, raccoons and chipmunks, among others, sleep in a stuporous state for long periods. Their temperatures drop slightly, their heart slows a bit and they breathe more slowly, but none of those animals exhibit the dramatic changes shown by true hibernators. Winter sleepers become aroused more easily, and more frequently, than true hibernators.

In practice, there's somewhat of a controversy surrounding the exact definitions of hibernations, torpor and other types of dormancy. These differences of opinion are largely a result of different perspectives. Students of biology need to keep in mind the tentative nature of the models scientists construct to explain specific observations.

The concept of hibernation, as it is normally applied, is a general model that helps to categorize and explain similar behavior patterns observed in various animals. Too often, however, we place too much emphasis on the model and then are surprised when we learn of some animal inconsiderate enough to behave in some unexpected way. Not all hibernators exhibit the same process with the same characteristics. There are always exceptions and variations on any general theme. If we are surprised, or uncomfortable with that, it may be that we place too much emphasis on the models, which should always be open to change and im-

provement, rather than on the organisms themselves.

If you have a question that's been puzzling you, send it to Dear Mr. Owl at GAME NEWS, Pa. Game Commission, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

"GETTING TO KNOW WILDLAND FIRE":

Curriculum Materials

The summer of 1988 will long be remembered as the year of the Yellowstone fires. For weeks that summer, news media of all sorts demonstrated the need to educate the general public on the role of fire in certain natural ecosystems. As a result, many teachers have begun to include units of study that focus student attention

on both the destructive and beneficial aspects of wildfire.

The National Park Service and the U.S. Forest Service have developed several sets of curriculum materials designed to help teachers do this job. Their latest effort is a poster/booklet combination that can be used by teachers across the nation. *Getting To Know Wildland Fire* by Ellen Petrick-Underwood is a collection of eight activities, most with ready-made worksheets, and a colorful, instructional poster that is actually the focus of some of the activities. Most of the activities can be used in the average classroom, while a few are intended to be done in burned areas of Yellowstone or in a similar burned area.

Request your free copy from the Division of Interpretation, National Park Service, P.O. Box 168, Yellowstone National Park, WY 82190.

GAMEcooking Tips

Getting Fancy

Getting fancy doesn't necessarily mean getting complicated or difficult, or needing a lot of exotic ingredients. Getting fancy just means using something as special as pheasant in a way that befits an elegant fowl. Years ago, my freezer was chock full of these Oriental birds, but with the ever spreading suburban sprawl that is affecting my area of Pennsylvania—and most areas—pheasant ranks have decreased alarmingly.

Several years ago, my son attempted to raise pheasants on his farm in Columbia County, but unfortunately, the experiment was not successful. For most of us, a pheasant in the freezer is a delicacy to be savored. The following recipe showcases the wonderful flavor of this special meat.

Pheasant Moo Goo Gai Pan

- 1 pound uncooked pheasant breast meat, boned
- 2 tsp. peanut oil
- 1½ tbs. soy sauce
- ¼ tsp. ground ginger
- ½ cup chopped green onion
- ½ cup minced celery

- 1 cup thinly sliced mushrooms
- 1 clove garlic, crushed
- 1 cup chicken broth
- 1 10-ounce package frozen Oriental mixed vegetables, partially thawed
- 1 teaspoon cornstarch

Cut pheasant into 1-inch cubes and combine with 1 teaspoon of the oil. Add the soy sauce, and the ginger. Stir to mix well.

Add the remaining teaspoon of oil to a wok and heat. Stir-fry pheasant in small batches over high heat until meat is lightly browned. Push meat to side and add onion, celery, mushrooms and garlic. Stir-fry until celery is tender and onion is translucent, 3 to 4 minutes. Stir in half of the chicken broth. Add the Oriental vegetables and cover. Steam 4 to 5 minutes. Meanwhile, stir cornstarch into remaining broth until smooth. Add to wok. Cook uncovered and stir until sauce is thick and ingredients well mixed. Serves 4.

—FROM WILD GAME COOKERY
REVISED AND EXPANDED EDITION
BY CAROL VANCE WARY

HI. WELCOME to Dauphin County, the home of our state capital, Harrisburg. I invite you to join me for the next 12 months as I conduct the many and varied duties I encounter as an urban-suburban WCO.

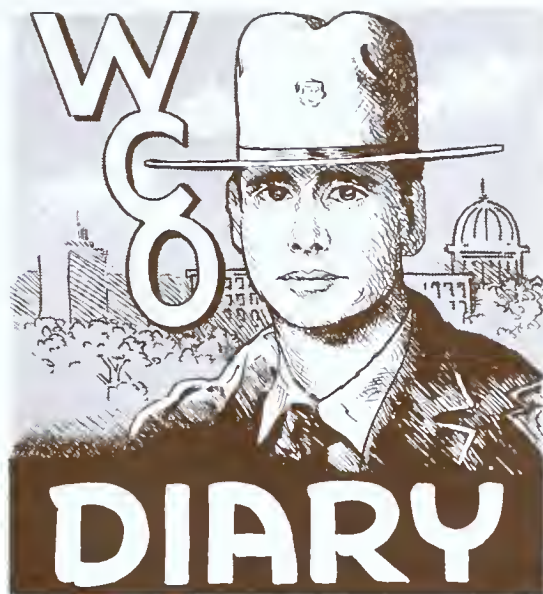
The county, with an estimated population of 240,000, is divided into two districts. Mine is the southern one, which is inhabited by more than 200,000 of those residents. The district is bounded by the Susquehanna River on the west, Lancaster County on the southern edge, and Lebanon County along the eastern border. The remaining district line rests upon the top of Second Mountain and State Game Lands 211. Neighboring officer Scott Bills is responsible for northern Dauphin County.

Topography is quite varied within the county. Mountain ridges and farm valleys typify the north; more remote, heavily wooded, and continuous mountains are in the central area; followed by gentle rolling hills and farm country in the southern extreme. Over the past decade or two, much of this latter farm country has been developed into suburban sprawl. Such development seems common near our larger cities and continues to spread throughout the southeastern part of Pennsylvania.

Wildlife is as varied as the topography, and you will be surprised at many of the encounters will have together during the year. So, come now as I ride, boat, hike, or bike (yes, that's right, bicycle) in the shadow of the capitol dome and across the district.

JANUARY 2—After completing some reports and records at my office, I am dispatched to handle both a roadkilled and an injured deer along I-81 in Lower Paxton Township. Collisions between deer and motor vehicles are inevitable, and much of a conservation officer's valuable time is consumed in handling these mishaps.

Later, I continue my investigation into a case that occurred during the first Saturday of the muzzleloader and late archery deer season. After receiving information from a concerned sportsman, Deputies Larry McCarter and Bob Schmitt apprehended four individuals along the base of Second Mountain in Fishing Creek Valley. The four fellows were found hunting without licenses and hunting with unauthorized sporting arms during this specially



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

regulated, primitive weapon season. Actually, they were found using a 357 revolver, a 30-30 rifle and 12-gauge shotguns with rifled slugs. To top it off, one of the fellows even attempted to shoot a turkey they had flushed. Fortunately, however, he missed.

Today I needed to do some additional leg work. One fellow claimed he had lost his licenses. After checking the records of the local issuing agent where the license had allegedly been purchased, I discovered that the guy had been less than truthful. Appropriate charges were later filed at the magistrate's office in Dauphin for that offense.

JANUARY 4—After gathering some information and materials for an upcoming deputy meeting, I'm on the road to Magistrate Alvord's office to file the remaining citations from our muzzleloader incident. The fellows involved had previously paid most of their fines on field receipts, but were unable to settle on all counts. Later I learned that they had pleaded guilty to the last charges and set up time payments with the magistrate.

Then it's back to Harrisburg to help Southeast Region Information and Education Supervisor Dick Anderson set up our Farm Show exhibit. The show will begin in a few days, and our agency has

been a traditional participant in this long-standing event.

Daylight is beginning to fade, but before my day is finished, I zip back into the mountains of SGL 211. I need to jog my memory concerning the details and "lay-of-the-land" for an upcoming hearing on a baiting violation that occurred on the opening day of the past buck season.

JANUARY 6—More investigating. As you can readily see, even though the peak of the hunting seasons have passed, much of a WCO's time continues to be devoted to law enforcement activities. Today I need to "chat" with a fellow in the Hershey area about the tagging of a doe he had shot. Biologist Fred Hartman had provided us with information about an improperly tagged—or untagged—deer he had checked in his travels during deer season. The fellow isn't home, but after checking the records, I find that he had used an invalid tag from a previous year's license, a license that had been issued to another person, to boot. I'm curious, to say the least.

The detective work continues as I swing down into Londonderry Township to continue my investigation of a reported jacklighting incident that had occurred during the wee hours on the last day of doe season. A vehicle was seen spotlighting after midnight and the anonymous informant claimed that the occupants had fired a shot. Fortunately, the informant was able to get the license number of the car, but that was all the information the caller could provide. I was looking for more.

After knocking on several doors in the area I begin to feel like a door-to-door salesman, but I was able to confirm a shot had been fired. Two folks from different parts of the area recalled being startled from their sleep by the loud report of a single rifle blast. Reassured by those two accounts, I grab my metal detector and begin combing the roadway's shoulder, hoping to find a spent rifle casing.

Slowly up one side and down the other I probe through the snow. Countless beverage cans, bottle caps and foil cigarette packs later, I come up with zip, zilch, nothing to help my case. Nothing to go on but an unknown informant's sketchy report and two individuals claiming to have heard a single shot that night. No dead deer, no hair, blood stains or empty casings—nothing. I resign myself to the fact

that I'll have to "chat" with our suspect without knowing much about what may have happened that evening.

JANUARY 8—The crowds are milling about in all directions; the air is laden with dust and the scent of hay and straw, and shouts of "whoa" or "yaw" are heard as wave after wave of work horses are paraded into the main exhibition ring of the Farm Show building. Ball caps, blue jeans, work boots and whiskers adorn the men passing by me. Women in modest attire, with skin mellowed by sun and wind, are close at their sides—it's the Pennsylvania State Farm Show.

For those of you who have attended this annual cultural event, I'm sure you are familiar with the many happenings that surround this festive occasion. I know of nothing quite like it.

Hall after hall of livestock and poultry exhibits, farm equipment, machinery, booths and displays abound. My task tonight is to man the Game Commission's exhibit. Dick Anderson and fellow WCO Greg Houghton of York County are with me.

The Commission has been a regular exhibitor at this important event for countless years, as wildlife and conservation are integral to the rural community. Each year the agency develops a timely theme and constructs a major display just for this and two other major shows. This year, the agency's Bald Eagle Recovery Program is highlighted.

Questions and requests are fielded all evening long, and by closing time the three of us are tongue tired, to say the least. Even though such constant conversation is exhausting, I thoroughly enjoy the opportunity to meet and exchange viewpoints with the many landowners who stop by. They play a paramount role in habitat preservation for wildlife in our farmlands.

JANUARY 9—Tonight the district troops gather in the PGC headquarters auditorium for the year's first deputy meeting. My deputies, like those found throughout the state, are a solid, dedicated group of volunteers. They're paid a nominal amount, at times, which might cover their expenses, but money isn't their motive. A deep, heart-felt concern for protecting our wildlife resources is what prompts them into service.

While considered only part-time em-

ployees, these men and women are true professionals, in image and ability. To maintain this professional standard, we conduct frequent training and administrative meetings to keep them abreast of Commission activities and programs.

Our district meets on a monthly basis to continue this training. Tonight, in addition to administrative details, we cover a U.S. Fish and Wildlife Service report concerning assaults on conservation officers throughout North America during the past year. After that I go on to provide a detailed summary of our district's activities and accomplishments during the previous year.

After the meeting I head out for some night patrol in East and West Hanover Townships. During my rounds, I pick up a fresh roadkilled deer and deliver it to a needy family in the area. They welcome my offering, and I take the opportunity to talk with the dad for awhile. Not too many months ago, his family was involved in a jacklighting incident just up the road from their house. My knock at their door on that particular night was most unwelcomed, and I was the target for some heavy verbal abuse. Tonight their attitude has tempered considerably, and I'm hoping that if I keep them in meat they won't resort to poaching. One never knows in such instances, though. I'll just have to wait and see.

JANUARY 11—Bill Shope has served the Commission for many years as a biologist, and he has developed a sound background in the management of our white-tailed deer herd. I pick up Bill this morning at our state headquarters on Elmerton Avenue in Harrisburg. I'm planning on introducing him as the commonwealth's expert witness in the realm of deer and deer behavior during a hearing at magistrate Sam Magaro's office in Linglestown. Mr. Magaro is a real stickler for details, so I know I'll need to cover all bases in the presentation of my case.

The case began last November when Deputy Wildlife Conservation Officer Larry Mummert led me to a pile of apples near a hunting camp in Fishing Creek Valley. He related that the cabin members had been suspected of baiting before, but they were never caught hunting over bait.

On the opening day of buck season DWCO Bob Landon and I were in that "right place at the right time," and caught the cabin owner in a tree stand, with a

loaded 308, a mere 50 yards from the apple pile. A quirk in the case was that the apple pile was now covered by a large canvas tarp. Thus, I needed Bill and his expert testimony on the olfactory senses of deer.

As I expected, the defendant contended that by covering the apples they would not serve as an enticement. Furthermore, the apples had been dumped several weeks prior to deer season and were now beginning to rot. No self-respecting deer would eat rotting apples, would they?

Diagrams, photographs and samples of the apples were introduced as evidence, but it was Bill's skillful testimony that put the icing on the cake. A tough magistrate and a tough decision: Guilty as charged.

Later, IES Dick Anderson, Lebanon County WCO Gary Smith and I are back in the booth of our Farm Show display. The faces of the crowd may change, but the concerns and queries are similar. Upon closing, we head home tired but happy to have helped the many folks who spoke with us.

JANUARY 16—A ping-pong ball kind of day; bouncing here and there trying to get caught up would best describe this day. After completing a stack of reports and returning several telephone calls, I meet and confer with Deputy McCarter in preparation for a hearing tomorrow.

Later, I serve several subpoenas on witnesses in the Hershey and Palmyra area.

"Boing," it's off in another direction to hand a citation to a fellow in Lower Paxton Township for buying a hunting license without ever attending a hunter-trapper education course. I can accept those people who would do such a thing unintentionally, but this guy was bragging how he "beat the system," or so he thought. After a bit of griping, he later pleads guilty at a magistrate's office and pays the \$100 fine in full.

Bouncing down the road and around the district, I pick up the 15,000 or so hunting license applications from the issuing agents in my district. I plan on later doing some research work with these mountains of paper.

From there it's back to PGC headquarters to meet a gentleman and settle a mistake kill of a hen pheasant that he thought was a grouse. Finally, back to my office and more necessary reports. Many

days are like this, and officers from around the state attempt to do the best they can with the time they have.

JANUARY 17—Another day in court, this time at D.J. William Rathfon's office in Hershey. There are 12 magistrates in the county, 11 have jurisdiction in my district. It's great experience for a law enforcement officer to work in so many different courtrooms.

The gavel fell and a guilty plea was handed down to a Harrisburg area fellow for his participation in the unlawful taking of a doe in Derry Township.

JANUARY 19—One more time—I'm beginning to feel like Perry Mason. I must say, a busy caseload keeps me on my toes. Bill Rathfon's office is again the scene. This time the defendant, who was brought in on an arrest warrant, pleads guilty before the hearing begins.

This gent was a passenger in a car that was stopped while spotlighting deer on the Hershey Farms property. A loaded 22 caliber semi-auto rifle was stuffed between the seats. During the search of the vehicle, Deputies McCarter and Schmitt uncover a vial of cocaine and a questionable substance which is later identified as LSD. Thus begins a rather long and complicated case, and this particular fellow will again return and become somewhat a thorn in our side. I'll refer to him as the "Dopey Dealer," because you'll read about him again several months from now.

Before the day is done, several more citations are filed around the district, from other cases that were under investigation. A roadkilled pheasant is sold under the authority of a permit to a gentleman from Hershey, and Deputy Schmitt and I resume a vigil of night patrol in the Derry Township area.

JANUARY 23—More reports, another citation, and program preparation keep me shuffling papers and paging through textbooks in my office. Later I can enjoy a dinner meeting with the Steelton Rotarians. Bringing several arms full of props, I present a program revolving around the Pennsylvania black bear. During the

course of my presentation, I predict that these critters will be a more frequent inhabitant in the county. Later in the year we'll find that my crystal ball forecast comes true.

JANUARY 24—Together with officers from throughout the Southeast Region, we gather at our regional office in Reading for a day of briefing on our new mobile radio units. These soon to be issued items represent the latest in sophisticated electronics. They feature 32 programmable channels, selective scanning, siren and public address system packages, and an external monitor. The units will complement our upgraded statewide communications network and will be a welcome tool to officers in the effective performance of their duties.

JANUARY 25—Got a call from Perry County WCO Leroy Everett today. Leroy needs me to assist him in the investigation of some fellows seen shooting at songbirds near Marysville. The witness was able to jot down the number of a hunting license displayed by one of the trio. A records check indicates the fellow lives in the Harrisburg area. I'm happy to help and tell Leroy that I'll keep him abreast of my findings.

After completing another investigation, I chauffeur some of my deputies to another meeting for the month. This time it's a joint dinner meeting of both districts in the county and is held at the Carsonville Hotel in Scott Bills' district.

This area is the heart of Ned Smith country, and prints of his paintings adorn the walls of the banquet room. Game Commission personnel, sportsmen and conservationists alike continue to miss the late artist. I most remember his journals depicting his keen insight into the natural world around all of us.

The meeting is well attended, and Law Enforcement Supervisor Lowell Bittner from the Reading office provides us with valuable training.

It's been a hectic month, considering hunting season has passed and the depths of winter have set in. Join me next month as I shift from law enforcement to information and education.

Thornapples



Chuck Fergus

IN NORTHERN Minnesota, an antiquated unit of measurement, the rod, remains in use. A rod is $16\frac{1}{2}$ feet—the length of a canoe. In the Boundary Waters Canoe Area Wilderness, which my friend Gary and I visited recently, the portages are measured in rods. In general, the more portages one struggles over, the more lakes one crosses, the more rods one places between oneself and the trailhead, the wilder and emptier the country becomes.

The word “portage” is of French origin; it means “the carrying of boats and supplies overland between two waterways.” The original European explorers and traders in the upper Midwest and Canada were French. These “voyageurs” fanned out from the shores of Lake Superior north and west to Hudson Bay and the Great Slave Lake. In search of furs, they traveled on foot and in birch-bark canoes, as the Indians did. I have read that seasoned voyageurs thought nothing of slinging two bales of furs, each weighing 90 pounds, onto their backs and taking off along the portage trail at a trot.

I am not made of the same stern stuff. On our trip to the Boundary Waters, the shortest portage was 11 rods, or 180 feet, past a stretch of toothy granite which strained the Keweenaw River to a mere trickle in September. The monster portage (which a voyageur would have viewed as no more

than a refreshing stroll) was 189 rods, or about six-tenths of a mile; it led from a big lake to a pond, which, once paddled across, landed us at the foot of a 100-rod portage to the next lake.

A portage goes something like this: We ease the canoe up to shore and get out. We lift out the three packs. These are “Duluth packs,” named for the city of their manufacture. The Duluth pack was designed in the last century. It remains the most popular pack in the northern canoe country. Made of heavy canvas with a tumpline and leather straps, it is basically a big envelope, roughly square when viewed head on, and capable of holding a large volume of gear. Its greatest advantage is that it sits upright in a canoe, instead of down beneath the thwarts, as a backpack must be stowed, keeping it out of the bilgewater and making it easily accessible for the unloading and loading which must accompany each portage.

Rationing of Pain

We draw the empty canoe up on land and set it off to the side of the trail. Then each of us shoulders a Duluth pack, slipping the tumpline over the head and positioning the headband across the forehead—and down the trail we go. Basically, portaging is a rationing of pain, a meting out of discomfort. The body immediately and naturally addresses the burden with periodic shifts of the muscles, strategic pressures and releases of neck, shoulders, abdomen, hands (slipped beneath the shoulder straps), back.

Uphill, downhill, through dust or



—DOUG PIERCE

The *Wingless Crow* is a collection of 33 "Thornapples" columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

mud, over slick cobbled rock. The body endures until the trail meets the next lake; the pack is shrugged off. Then we retrace our footsteps, working the kinks out of shoulders and backs, while admiring the white-barked birch whose leaves show autumn's first gold, the purple asters, the blueberry shrubs gone ruddy. Drink in the sight now: you can't see much from beneath a canoe.

Trials and Tribulations

The canoe is turned on its side, facing away, then levered onto the tops of the thighs, then boosted into the air, the lifter's body turning so that the carrying thwart settles across the shoulders. It is a mistake to heft the canoe before taking off the wide-brimmed hat. Once underway, one feels like one is walking around inside a garbage can. Rain plinks on the canoe's hull. The

light is dim. Pain builds in the shoulders, trickles forward, and collects behind the eyes. The hands are occupied in claspings the gunwales, to steady the canoe against gusts and to keep the stern from scraping on the ground. Thank goodness it is late in the year and the mosquitoes are about gone. Trudging along, staring at my boots, sweat dripping from my nose, I wonder if two portagers ever met and collided, dashing out each other's brains.

Portage. The "P-word," as Gary and I referred to it. The country is rugged, classic North Woods, a place of pine, spruce, tamarack, fir, alder, aspen, birch: the thick forest interrupted by lakes and sluggish rivers and bogs and ponds, linked by the portage trails.

Wildlife seems not as plentiful as in Pennsylvania. In nine days we did not see a deer. (We saw their tracks on some of the portages.) We didn't see a moose, although they are said to be plentiful in the Boundary Waters. Earlier in the summer an acquaintance of mine, drifting silently down a Boundary Waters river, came upon a wolf feeding on the carcass of a huge bull moose; without a backward glance, the big gray canine faded into the timber and was gone.

We saw—and heard—dozens of



loons. These are big solidly built birds that ride low in the water. They are primal looking, and occupy page 1 in the *Field Guide to the Birds*. They have heavy, pointed bills and red eyes. Sometimes they swim along with their bills buried in the water, their eyes underwater, aimed down, and when they see a fish they dive suddenly and are gone for minutes. Surfacing, their white-checked backs shed beads of water. On chill foggy mornings, the silence perfect except for the soft gurgle of our paddles, loons would pop up a few yards from the canoe and ride there in the gentle swell.

Loons have a range of calls which they use to express various messages and sentiments to one another. Their weird calls rise and ululate and yodel and laugh. Sometimes they go on all night. It was grand to waken in the dark, the stars glinting down through the tent doors, the hollow wild startling call rising up again, so that one realized one had been summoned from sleep by a loon, and settle back into the down bag, and catch a scent of pine or dying campfire, and drift off to sleep again, knowing that the loons were out there on the lake, going about their wild business.

We saw loons taking off and flying. To

get their heavy bodies airborne, they have to sprint across the surface of the water, their big flat feet slapping and splashing out a trail of shining dots. They gain altitude inch by inch, and then circle, to get up even higher in the air. They fly with a pronounced downward drooping of the neck, with their outsize feet dangling behind, waving in the wind. They reminded me of birds that were slowly evolving back into amphibians, gradually losing their powers of flight.

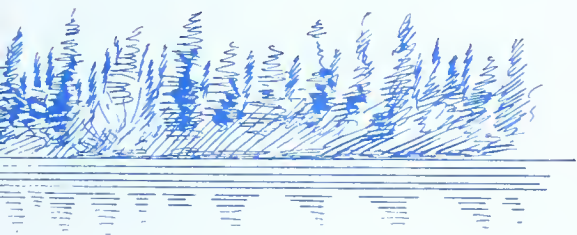
Eagles were abundant: adults, with their bold white tails and heads; and juveniles, distinguishable by their piebald plumage and butter-yellow feet, as well as their heroic proportions. One afternoon, returning to camp after a day's canoeing, we startled an immature eagle out of a snag about 50 yards from the tent; we heard his wings flogging the air.

Raiding Rodents

I preferred the eagles and the loons to the rodents who kept up an intermittent assault on our foodstuffs wherever we camped. Because the Boundary Waters receives so many visitors, the U.S. Forest Service has designated certain spots as formal campsites; one may camp only at these places. Each camp has a rock fireplace with a grill, and, off in the woods, a pit toilet. The chipmunks, red squirrels, and mice living around these campsites are plentiful and bold; I spent about a third of my time, when preparing or eating meals, in bluffing these pests away.

We spotted herring gulls (seemingly at least one resident pair per lake), sharp-shinned hawks, ravens, blue jays, gray jays. One misty morning we panicked a squadron of 13 mergansers, strung out like beads on a string: all at once they raced away across the water, maintaining a perfect line, squawking ludicrously. Mallards flew quacking out of the lily pads. Geese went over in loose vees, honking sonorously, heading south.

One afternoon we played tag with a family of otters. The otters would swim



—T. OULT PIFER

in place, stretching their necks and elevating their heads—they looked like brown pilings in the river. Then all would duck and swim furiously, only to stop a hundred yards further on, and poke up their dark broad heads, and gawk at us, and let us gawk at them.

Fall was coming. The birches yellowed noticeably over the course of our trip. The haws growing on sunny hill-sides next to the portages glowed pink-orange; dogwoods were turning wine red. Ferns in the lichen-spotted rocks just above lake level showed yellow and

cinnamon. The cedars, which some call “tree of life,” remained steadfastly green; squirrels and chipmunks industriously cropped seeds from the conifers’ branches, storing them against the long northern winter to come.

On our last days, recrossing the portages heading for the trailhead, we met many other canoes. Our sense of solitude diminished. But we had been renewed, by the simple physical actions of paddling and portaging, by the gabbling of geese, the lapping of water, the laughing of loons.

Fun Games

“What’s The Bear Facts?”

By Connie Mertz

Unscramble the letters to complete each statement about black bears.

1. Black bears, especially the males, need these to survive.

(LARGE) T R I O E S T I R R E _____

2. A bear walks by “shuffling” because he is _____.

T O F E L O T D F A

3. Black bears are mostly _____, active at night.

T O N U N A C R L

4. Black bears are mainly _____, but they are _____, eating whatever they can find.

T E N E V I G A R A S P U N O I S S T T R P O

5. Black bears don’t technically hibernate, some say, but they do remain _____ in winter.

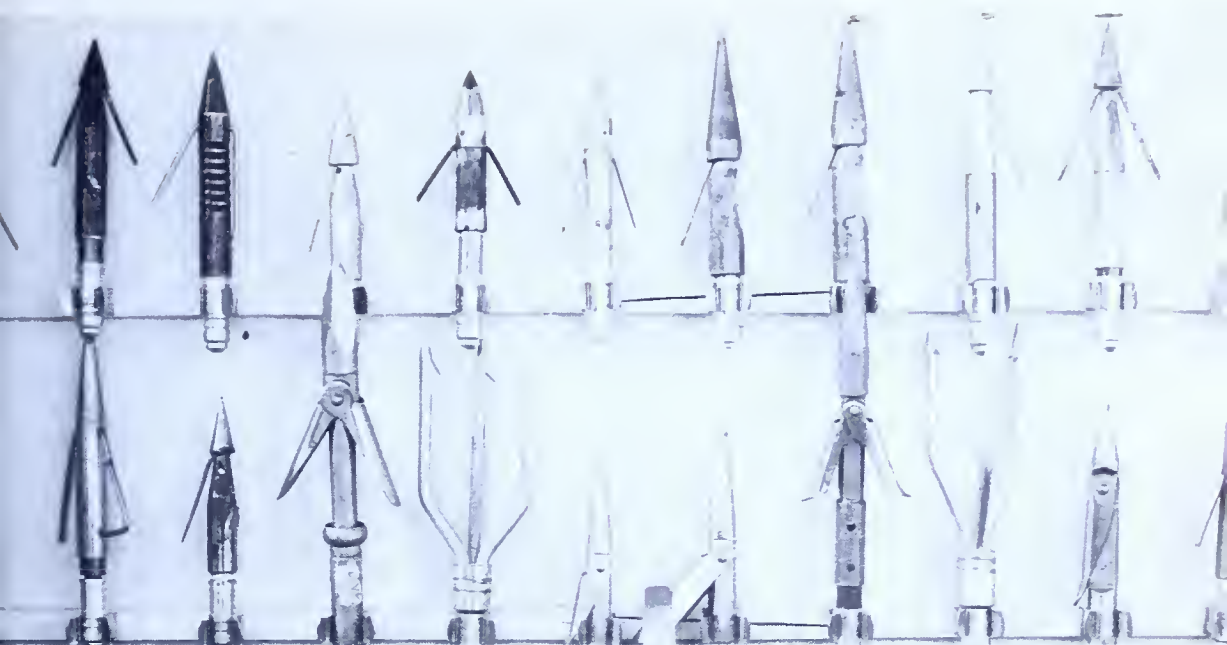
R O N T A D M

6. The age of a black bear can be determined by examining a small _____.

H O T O T

BONUS QUESTION: Pennsylvania was the first state to protect black bears. What was the year? 1905, 1956 or 1970

Answers on page 64



ARROWHEADS for shooting fish are perhaps not used very often, and hence can be hard to find when the archer decides to go after carp or similar species. But that isn't the case for Guy Eckler; his collection includes more than 150 heads designed specifically for aquatic targets. His entire collection of arrowheads is possibly the second largest in the world.

Finding heads for . . .

Aquatic Arrows

By Keith C. Schuyler

BECAUSE they aren't used as often or by as many of us, finding arrowheads for shooting fish can sometimes mean a futile search in an archery tackle box, back of drawer, or collect-all cabinet. Or, maybe that last one was ruined when it missed the carp and, instead, struck a rock. Regardless of the season, it's not unusual for many of us to find ourselves plumb out of them at a time when stores are closed and the alarm clock is set to get us in on the early morning action.

Not so for Guy Eckler, Highspire. Guy has 165 arrowheads designed solely for use against aquatic targets, and each one is different. As nearly as he can determine, they make up the

second largest collection in the world. His arrowheads came from all over the country and comprise but a part of his total collection of (at last count) 1330 different arrowheads, from ancient copper to modern steel.

In addition, Guy has another 1017 broadheads and 214 fish arrowheads that are duplicates of those in his collection. He uses those for trading purposes. In total, his assortment of broad-





ECKLER owns more than 1330 different arrowheads, more than 2500 in all. The fish points in his collection date back to the 1950s; Eckler began making his own points in 1965. He is an avid aquatic archer—his favorite quarry is sharks.

He has taken seven of the big fish, including a 7½-foot dusky shark. Much of his time, though, has been spent helping first-timers. As many as 13 archers have made the trip from Pennsylvania with him for sharks.

For such shooting, the arrowhead is fastened to a 125-pound test steel strand that is tied into a heavy duty fishing rod and reel. Archers also make use of a fighting chair on the boat, as besting a big shark may take nearly an hour. Dusky's are edible and bring nearly a dollar a pound—if you clean them. Special attention to arrowheads is important in this particular sport because shark skin is extremely tough. The heads must be sharp. Any but direct hits will bounce off these creatures, much as they would when striking a rubber tire. Also, the weight of solid glass arrows helps drive the heads home.

It was this toughness in marine creatures, and the havoc that Susquehanna River rocks wreak on relatively expensive fish points, that led Guy to develop his own, in 1965. Having access to a machine shop where he was employed, Guy combined metal tubing, heavy wire and the toughest nails he could find. Both the nail and wire barbs were set in solder heated to liquid form. The result was a durable and effective head that gave good penetration on the toughest targets. Furthermore, he found he could manufacture about a dozen such points for the cost of just one good commercial head.

Shooting at targets in the water is a close range proposition. Consequently, fletching is unimportant. In fact, drag of the line or steel leader attached to the arrow acts to stabilize it in flight.

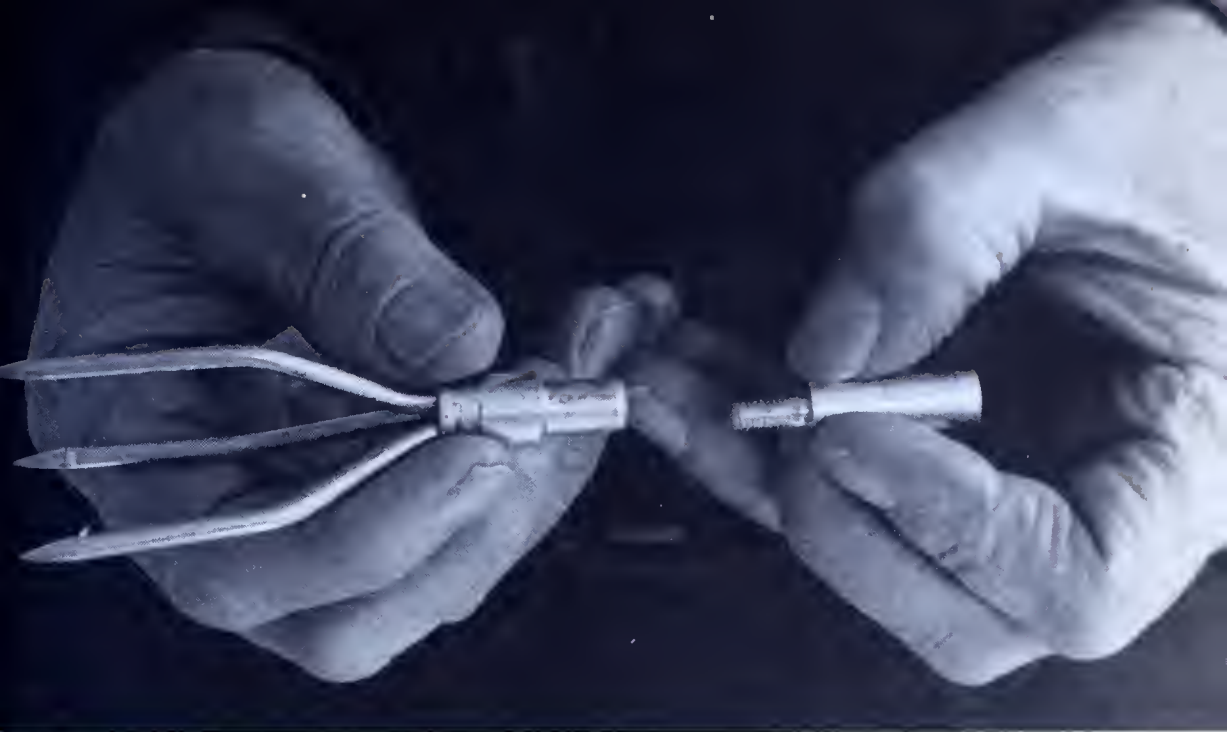
A great variety of fish arrowheads have been developed for the more tender and scaled hides of carp and other rough fish. Early heads were simply metal points with steel projections to

heads, fish arrowheads and target arrowheads adds up to more than 2500.

It is common for collectors to accumulate duplicates if they are fortunate enough to find a supply of any given head, especially if it is a rare or hard to find design. With nearly 200 members of the American Broadhead Collectors Club, some of whom are located in various countries over the world, the avid collector can never have too much trading material.

My first association with Guy Eckler was on a carp hunting trip along the Susquehanna River below Harrisburg. Our start was less than auspicious when, launching in the dark, the river came in over the stern of the johnboat and soaked my camera. Later I joined Guy and his friends in a truly exciting and successful hunt for rays up to 90 pounds off Chincoteague, Virginia, in the Atlantic Ocean.

Aquatic hunting has been a continuing pastime for Guy, with sharks being his main quarry for the past 23 years.



THIS TRIDENT type fish point was originally developed in France for use with spear guns. Even though they weren't made for bows, Wilbur Corley of Oklahoma made an adapter that allowed them to be affixed to U.S. arrows. The trident is an efficient design for shooting frogs—where legal.

act as barbs. They would shoot into or through a large fish, but the fixed barbs made it necessary to push the head on through the fish if there was incomplete penetration. In any case, the line had to be cut and reattached to the head. That can be a real inconvenience when shooting is fast or when wading and fish must be handled at boot-top level. Most heads today are made with reversible barbs, or a single barb that fits into a sheath in the shank of the head for easy removal. Either arrangement will permit removing the head with the line intact.

Forked heads with two to four barbed points were developed in France for spear guns, yet some of them made their way into Eckler's collection. He considered removing them, because they weren't made for the bow and arrow. Originally, they could not be adapted to arrows as their ferrule openings used a 6mm female thread. Then, in 1988, he discovered that Wilbur Corley, who caters to aquatic bowmen in Oklahoma, had made an adapter for these trident-type heads so they could be attached to U.S. arrows. Guy now considers them to be compatible with other fish points for his collection. They

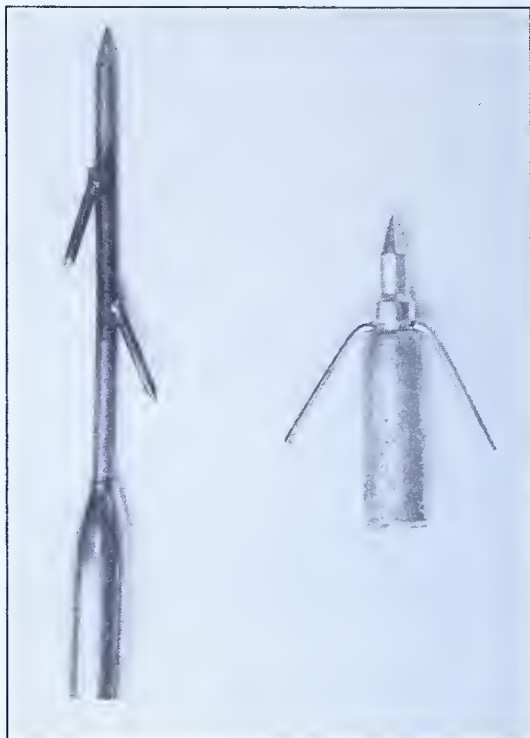
are also useful in hunting frogs when and where legal (unlawful to shoot at night in this state).

An interesting contact with Jim Ramsey, Ohio born Indian who sometimes went by the name of Jim Red Eagle, produced some data and heads among the most valued in Eckler's collection. Somewhat crude by modern standards, these early heads were designed to be tied on the arrow, being made before screw-in adapters supplanted previous methods of fastening heads to arrow shafts. Ramsey, who became interested in archery around 1913, later obtained patents on three heads and developed a combined barb release and arrowhead detaching mechanism. Neither was apparently produced commercially. As evidence of his expertise, he was commissioned by Fred Bear and Charlie Kroll to make obsidian spear points for the Pope and Young Ishi Award. Ramsey died in 1984 at the age of 89.

Guy is also fortunate to have some of the fish points made by L. E. Stemmler, at one time the oldest manufacturer of archery equipment in this country before closing shop a few years ago. My personal acquaintance with Stemmler predates World War II when I bought a



THE THREE heads at left are crude, tie-on designs developed by Jim Ramsey, an Ohio-born Indian who was one of the top arrowhead makers of this century. The points at right were manufactured by L.E. Stemmier Company.



rawhide-backed, lemonwood stave from which I made a longbow that dropped my first arrow-shot deer.

As with any collection, many arrowheads are similar, distinctive only by slight modifications. For example, most arrowhead collectors have a variety of Bear Razorheads, all are called by the same name. But each is different due to some modification or improvement made by Fred Bear over the many years the head has been sold.

Modern Arrowheads

Two of the more popular fish arrowheads today are the large Stingarees made by R & D for "big game" aquatic targets, and Albert Minisini's Fish Slick, a 265-grain, single barb head made for more modest shooting.

As with broadheads, some of the old editions took some strange forms. But basically all fish heads are patterned with a point and one or more barbs of stout wire or metal projections somewhat similar to the business end of a fishhook. Because the heads lack the

conventional bend in a fishhook, the barbs are enlarged to accomplish the same purpose.

It should be noted that, in Pennsylvania, a fishing license is required to utilize the bow and arrow to shoot what are considered to be rough fish: carp, gar, suckers and eels.

Evidence of Guy Eckler's interest in aquatic arrowheads is his expansive reference manual, in 8½ x 11-inch format, under the title, *Fish Points*, that must surely be the most comprehensive manual of its kind. The third edition was printed in 1988 for use by collectors who receive update material as it becomes available. Included are 30 pages of advertisements collected back to the early 1950s. There are 131 heads drawn to scale for easy identification.

Guy, now retired, exhibits his entire collection of fish points and broadheads each year at various archery festivals around the state. He continues to collect and trade all types of arrowheads and can be reached at 420 High St., Highspire, PA 17034.



THE HANDGUN is a challenging hunting firearm. In the hands of a knowledgeable shooter, it can equal a rifle's killing effectiveness out to a reasonable distance. With the advent of optics designed for use on revolvers and single-shots, and the proliferation of other equipment manufactured with the hunter in mind, the handgun has become an even more proficient tool.

More Thoughts On Handguns

By Don Lewis

Photos by Helen Lewis

I'LL NEVER FORGET the afternoon back in 1977 when a friend, Jim Wyant, toppled five ram silhouette targets at 200 yards. That may not sound like much of a feat until it's revealed that Jim was using a handgun—a 44 Magnum. Jim also knocked over all the rams in a practice round. That adds up to ten consecutive 200-yard hits. Jim's final shot is clearly imbedded in my mind: the Ruger Super Blackhawk roared, the sound of lead smacking against steel followed, the metal ram

jerked and then for seconds seemed to stand motionless before falling.

What seemed like an eternity was only a moment or two. Still, there is a noticeable time gap between the crack of a 44 Mag handgun and the echo of





lead hitting steel 200 yards away. In fact, several times I thought Jim had missed, even though I saw the ram move before the sound of the bullet's impact drifted back. No matter how you feel about the accuracy of the handgun, I witnessed some spectacular shooting.

Two Distinct Factions

I think it's safe to say there are two distinct factions involved when it comes to hunting with handguns. There is a diehard group, those who implicitly believe in the magnum revolver; some even put the handgun on par with the rifle. They aren't at all bashful about their faith in the handgun, and they're sure to put forth a number of convincing arguments why hunting is more challenging with a revolver than a rifle. Their arguments are gathering converts as over the decade handgun use in big game hunting has grown in popularity.

The second faction is made up of those who have a disdainful view of the holstered weapon. They see it as a hard-to-shoot outfit that lacks in accuracy and killing power. The chasm between these two groups is wide and deep.

I am not a handgunner per se, but I have enough ballistic experience to know the handgun is far from being inadequate in the big game woods. True, it has limitations, but so does a rifle. One day, for example, I watched a guy

THE TWO-HAND hold is probably the best method for gripping the gun, especially for hard-recoiling calibers. Standing is not a terribly accurate shooting position, so the handgunner should work on creating solid kneeling and sitting positions.

shoot several times across a wide ravine at a running deer. I can't state the exact distance, but it was close to 500 yards. He was using a Marlin 336 chambered for the Winchester 32 Special. His 170-grain .321-diameter slug, leaving the muzzle at around 2100 fps, would drop 15 feet or more over the 500-yard range, and velocity would be under 1000 fps by the time the bullet reached the deer. The shooter obviously knew nothing about the ballistics and trajectory arc of his cartridge. I can state with complete confidence that the Winchester 32 Special cartridge is definitely not designed for long range shooting.

I'll refrain from getting too involved in the history of the handgun. It probably dates back to the discovery that charcoal, saltpeter and sulfur (eventually called gunpowder) could be used in devices much smaller than the big vases and pots used by the military. It's safe to say the handgun of that era was nothing more than a hand-held cannon.

During the early 1400s, multi-barreled handguns were being used. Various makes and designs appeared over the next hundred years or so. In the 1500s, several types of firearms utilized revolving barrels. In the early 1800s, James Puckle designed a single barrel monster that had a rotating cylinder. Around the same time, Captain Artemus Wheeler from Massachusetts came out with a revolving flintlock handgun, and although his flintlock revolver suffered an early death, Wheeler's idea of a revolving cylinder survived.

In 1836, Colt's Paterson model—a pepperbox design, in which the barrels rotated, not the cylinder—was losing ground fast, and Colt was ready to give up. But as the West was being settled then, horsemen liked the compact side-arm; it had a distinct advantage over a rifle in a running firefight with robbers or Indians. And when the Mexican War

IT USED to be difficult to find a rig in which to carry a scoped, large-frame handgun. Now a number of holster manufacturers cater to the hunting fraternity. Comfort and the ease in which the gun can be put into action are important considerations.

started, the military was forced to accept the revolver. Shortly afterwards, the hefty "Walker" Colt, weighing in at four pounds and nearly a foot and a half in length, established the revolver as a viable weapon.

There's a tendency today to classify all handguns as pistols, but that's false. There are two types of handguns: revolvers and pistols. The revolver with its revolving cylinder needs no explanation. The pistol includes those of an autoloading design, with detachable magazines, and single shot handgun. Revolvers shouldn't be called pistols. The word pistol may have been derived from Pistoia, an Italian gunmaking center.

One reason many hunters and shooters have a disdain for handguns stems from the simple fact they are unable to shoot them accurately. Shooting a short barreled firearm is vastly different from shooting a rifle. Handgunners are a breed of their own. Sad as it may be, many of us will never become proficient with a handgun. Thick wrists and large hands certainly help, but they are not the only factors involved. In shooting a handgun it's the way the handgun is held that's important.

While this may seem rather elementary, it isn't. It takes time—maybe weeks—just to learn what the proper hold is. At first, it may be necessary to deliberately push the handgun in the shooting hand. Using an empty handgun, push the grip hard into the V between your thumb and four fingers. While pushing firmly into the V, wrap your thumb and fingers around the grip.

I reiterate that this is not a one-time affair. Actually, it's a trial and error method. The paramount goal is to have a firm hold high on the grip, with the first joint of the shooting finger comfortably against the trigger. The thumb should be against the frame but in a



manner that makes it easy to cock the hammer. The three fingers should be wrapped around the butt. It may be necessary to cock the hammer to check for the proper feel. On double-action handguns the trigger moves back considerably as the hammer is cocked.

Unfortunately, there is no exact way to hold a handgun; it's basically up to the individual. Stating that there is only one way to hold a handgun is about as ridiculous as stating there is only one proper batting stance. Few top hitters in baseball hold the bat the same way. The same applies to handguns. Don't overlook getting advice from top handgunners. You may not be able to do what they do, but their advice will help. I can best sum up the handgun-holding subject by saying that it's imperative that you hold the handgun the same for each shot.

I'm convinced the two-hand hold is the best method for the hunting handgun. Unless some type of recoil reducer is used, a two-hand hold is almost mandatory for the larger magnum handguns. The positioning of the hands is a personal matter, but be certain to keep



CHOOSING the proper handgun is a personal decision, and it's certainly a good idea to compare several different models and calibers to find the gun best suited to one's needs. Once the firearm is selected, practice comes into play. A handgun is difficult to shoot well, because of its short sight radius and the demand for a good, consistent trigger squeeze. Accuracy comes only with extensive training, and the hunter should become thoroughly proficient before going afield.

the supporting hand away from the cylinder, where it won't be hit by slivers of lead blown out the cylinder gap as the bullet enters the bore.

Flinching is a common problem in all types of shooting, but it's more pronounced in handgunning. The only thing that will solve this demon is shooting. Start with a 22 rimfire handgun and use it until the flinching problem is licked. Don't expect it to disappear entirely, though; flinching will always be a factor the handgunner will have to deal with.

All handguns seem to have a loud report, but the magnums create the most noise. Ear covers are essential, and it's also wise to wear ear plugs or balls of cotton in the ears under the ear covers. Wear shooting glasses, and make certain all spectators close to the firing line are also equipped with ear covers and glasses.

A question a lot of new handgunners

ask is, "What is accuracy with a handgun?" I can assure you accuracy with a handgun is not the same as it is with a rifle. Don't dream of one holers or groups that can be covered with a quarter. I've heard all types of arguments, measurements and requirements. First, the handgun is not a long range hunting firearm. For most handgunners, 75 yards should be the maximum range with a scoped handgun, and possibly 40 to 50 yards with open sights. Keeping all the shots in an 8-inch bullseye at those distances is big game hunting accuracy.

I know I will rankle many proficient handgunners by recommending limits well within 100 yards. In fact, a few handgun writers talk in terms of 200 or more yards. I just can't buy those long ranges. In my view, handgun ballistics do not substantiate those claims. Here's why.

A 240-grain bullet's top velocity in

the powerful 44 Magnum is around 1500 fps. According to my BALTEC computer ballistic program, velocity would drop to 1329 fps at 50 yards; 1189 at 100; 1084 at 150; and 1009 at 200 yards.

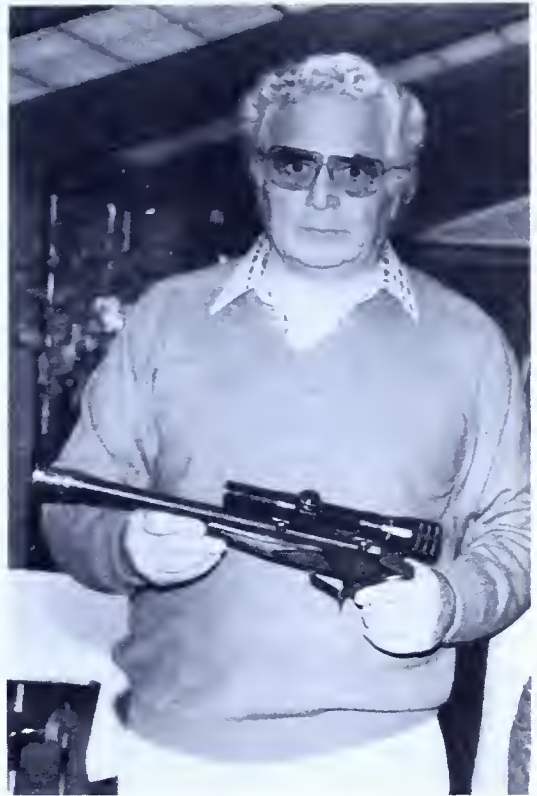
Energy figures aren't all that exciting. The 240-grain slug delivers 942 foot pounds of energy at 50 yards; 753 at 100; 626 at 150; and 543 at 200 yards. With a 50-yard sight-in the bullet drops 56 inches over 200 yards.

For years, it has been claimed that a cartridge should produce at least 1300 foot pounds of energy at 100 yards to qualify as a whitetail deer cartridge. True, silhouette shooters upset steel rams at 200 meters with the 44 Magnum handgun, but making a clean kill on a deer or bear 600 feet away is an entirely different matter. Sure, a head, neck or spine hit would in all likelihood be fatal, but that's depending on luck, not good shooting, and nobody should count on luck.

Tens of thousands of deer are killed in Pennsylvania each season at well under 100 yards. A magnum handgun in the hands of a good shot isn't out of place for that type of big game shooting. The goal for a new handgunner should be to become accurate, and the only way to reach a high degree of accuracy is to practice literally every day.

That may sound like an expensive proposition, and it would be if it weren't for bullet casting and handloading. Lead with tin or antimony in it is available from dozens of sources and is usually free or very inexpensive. Casting is a pleasant hobby that doesn't require a lot of expensive gear—an electric or gas-fired hot plate, cast iron bucket, ladle and set of molds. A bullet trap makes it possible to use the lead over and over again.

An acquaintance casts 148-grain wadcutters for his 357 Magnum. He graduated from a tiny, battered cast iron pot to an RCBS Pro-Melt electric casting furnace. The new furnace holds 22 pounds of lead, which makes some-



VITO CELLINI developed the Cellini Stabilizer, here fitted on a Thompson/Center Contender in 45-70. The stabilizer, generically known as a muzzle brake or compensator, reduces muzzle jump and felt recoil by venting gases upward. The Contender itself is a good choice for the handgun hunter; it can be had in a variety of chamberings, from the 22s up to powerful 30 and 40 caliber rifle rounds.

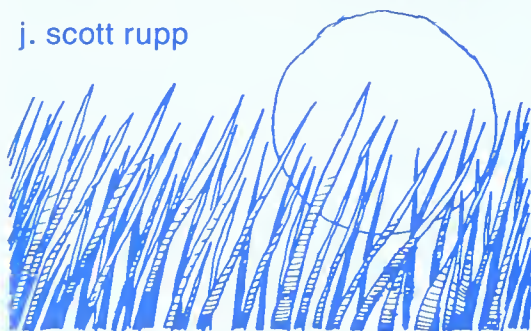
thing over 1000 wadcutters. Living in an isolated area permits a 20-yard range, complete with covered bench-rest and bullet trap. Working a steady second shift allows him time in the morning to practice. He seldom fires less than 50 rounds a session. He can consistently hit a soft drink can at 50 yards with a two-hand hold—no rest involved.

The magnum handgun is adequate for big game up to 100 yards, but I still believe 50 to 75 yards should be the maximum limit for most handgun hunters.

Using a handgun for big game is a challenge most of us will not accept, but it will always be first choice for the dedicated few.

In the wind

j. scott rupp



Drought conditions and habitat destruction are continuing to spell trouble for the nation's waterfowl. The 1990 breeding population census, although up 1 percent from last year, was the third-lowest on record—only 1989 and 1985 were worse. Overall, duck populations were 22 percent below the 1955–89 average. Waterfowl found little to like about the northcentral region of the U.S.—a prime breeding area—following last spring's drought. North Dakota alone lost 46 percent of its ponds. The news was better in prairie Canada, though, where pond numbers increased 66 percent over '89.

Back in 1969, Michigan hunters harvested 50 spring gobblers; 10 years later the number climbed to more than 6000 birds. Last spring, hunters took nearly 8500 birds, and the expected count for this spring is expected to reach 9000. Turkeys have become so well established that seven southern areas of the state will be open to spring hunting this year.

The peregrine falcon disappeared from the skies over Wyoming in the mid-1970s, the prolonged use of DDT causing thin egg shells that resulted in reproductive failure. But 10 years after the state's first efforts to return the regal predator to its historic range, the peregrine has become a wildlife management success. In a cooperative program between state and federal agencies and the non-profit Peregrine Fund, transplant activities have resulted in 13 nesting pairs in western Wyoming. A state nongame coordinator estimates that Wyoming has suitable habitat for 100 pairs of peregrines.

Melanistic bobcats, a phenomenon similar to our black squirrels, have been reported nationwide only 10 times since 1939, and in all cases they have come from southeastern Florida. Melanism is a genetic mutation relatively common in gray and fox squirrels, red fox and mink. Of the verified cases of black bobcats, three were live-trapped and sent to zoos, two were killed by trappers, four were killed by vehicles, and, last April, one was live-trapped and released in the wild by Florida game commission biologists.

State game officials in Ohio sponsored a "Chuck Ohio" day last summer to promote sportsman/landowner relations. Young hunters, each accompanied by an adult, took to the field to hunt 'chucks on farms where they had become pests. Groundhogs annually cost Ohio farmers millions of dollars in crop damage.

Arkansas residents used to be advised to take down their hummingbird feeders in early September because biologists believed that leaving the feeders out would keep the birds around too long to successfully migrate. But modern research revealed that hummingbird migration is triggered by day length and other factors rather than food supply. Now biologists suggest that feeders be left out until the first frost, providing late-migrating birds nourishment to make it to their winter homes in Mexico and South America. "The last birds to migrate are usually the ones that aren't in shape for migrations," said an Arkansas game biologist.

Three Missourians convicted of poaching deer were each fined \$1000, plus \$29 in court costs. The 60-day jail sentences the trio received were suspended, provided the two men and one woman did not hunt or fish in the state for one year. The three were convicted on two counts each of taking deer out of season.

Answers to Word Scramble:

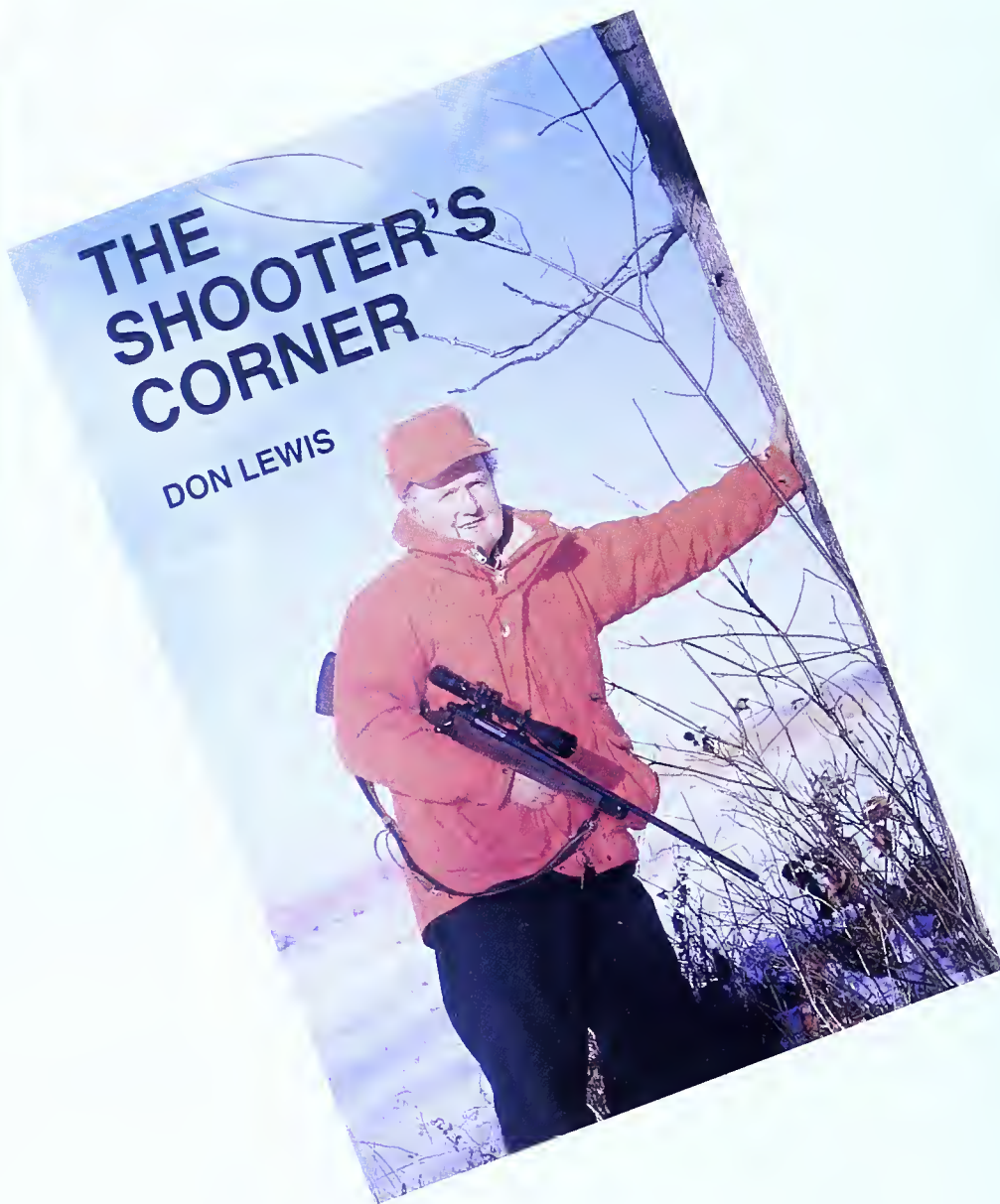
#1—territories, #2—flatfooted,
#3—nocturnal, #4—vegetarians,
opportunists, #5—dormant,
#6—tooth

Bonus: 1905



COLLECTORS, BEWARE: It's recently come to our attention that somebody is marketing imitation 1982 Working Together for Wildlife patches, which feature the osprey. Above is the legitimate patch, issued by the Game Commission, which sold out quickly and has significantly appreciated in value on the secondary market. Below is a cheap imitation. Note the poor definition, different coloration, and plain—not embroidered—background. Also, the back of the imitation lacks the plastic backing found on the original.





THE SHOOTER'S CORNER, by Don Lewis, is a 449-page hardcover book that covers nearly every facet of the shooting sports from a hunter's point of view. Beginning with the history of firearms, Don covers actions, stocks, and barrels; scopes and metallic sights; rimfire, big game and varmint cartridges; shotguns, gauges and fit; and a whole lot more. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. Price is \$15 delivered.

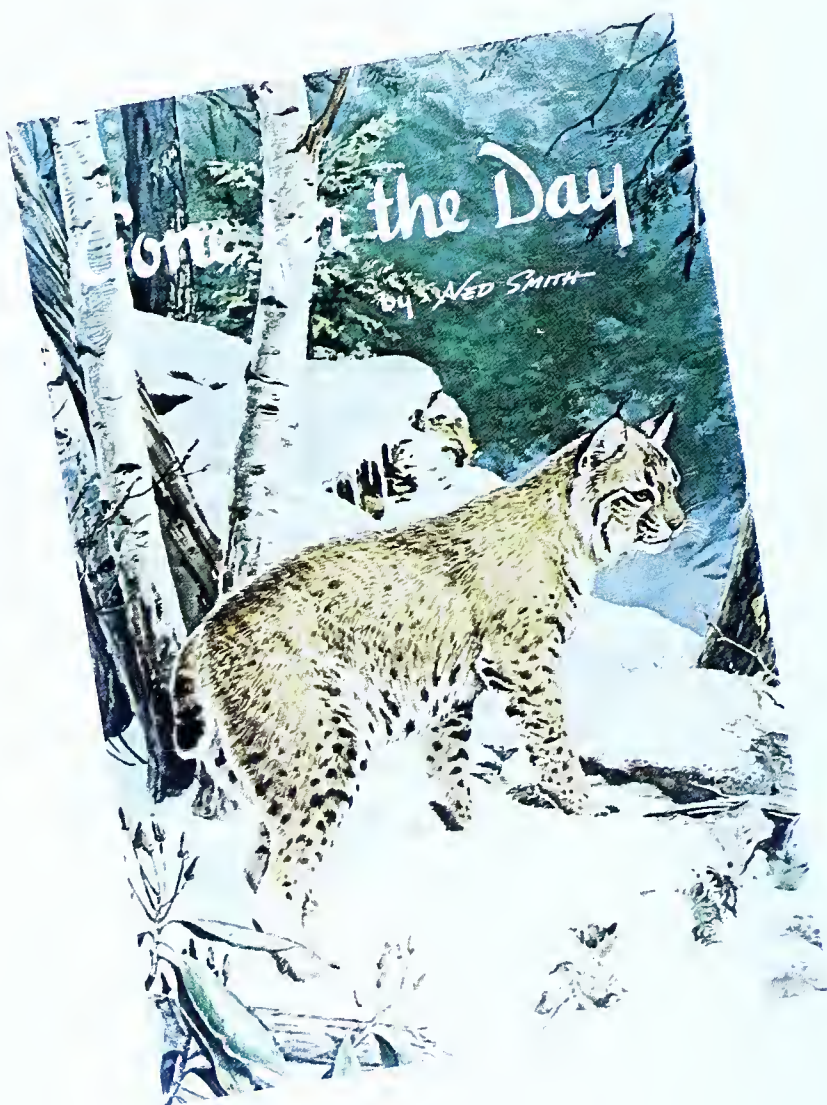
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FEBRUARY 1991

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FEATURES

I Had It Made	3
By Paul C. Gsell	
The Snowshoe Hare	6
By Greg Grove	
On the Shores of Lake Erie	13
By Joe Kosack	
A Half Yard of Licenses	19
By T.R. Them	
Pioneer Life	22
By Mike Sajna	
The Mink and the Grouse	27
By Bill Wasserman	
"Plenty of Time"	30
By Rodney E. Curry	
1989 Game-Take Survey	39
By Robert C. Boyd	

NEWS

Field Notes	34
Books in Brief	54
In the Wind	64
By J. Scott Rupp	

COLUMNS

Random Thoughts (Another View)	41
By Linda Steiner	
Outdoor Wildlife Learning	44
By Bill Einsig	
GAMEcooking Tips	45
By Carol Vance Wary	
Fun Games	46
By Connie Mertz	
WCO Diary	47
By Keith Snyder	
Thornapples	51
By Chuck Fergus	
To Send the Shaft (Archery)	55
By Keith C. Schuyler	
Long Barrel vs Short Barrel (Guns)	59
By Don Lewis	

COVER PAINTING BY KEN HUNTER
(Cover Story on Page 6)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

NOTICE: Subscriptions received and processed by the last day of each month will begin with the second month following.

Let's Get Everybody Involved

IN LAST MONTH'S issue—and as far as I knew at press time, in this month's, too—is an insert promoting the Pennsylvania Wild Resource Conservation Fund, the state's income tax checkoff program. Through this program, established by the legislature in 1982, taxpayers are able to contribute all or a portion of their state income tax refunds for the management and protection of wild plants and animals. Pennsylvania was the 18th state to implement such a program and the first to include wild plants.

Across the country, checkoff programs have proven to be a popular way for people from all segments of society to voluntarily support wildlife conservation efforts. Traditionally, sportsmen have been footing the bill for wildlife research and management programs. And over the course of this century many animals, from deer and beaver to eagles and egrets, have been saved from extermination. Wildlife management, too, has grown from rudimentary stocking and preservation efforts to sophisticated scientific techniques that rely on computers and, in some instances, even satellites.

Despite the accomplishments being made, pollution, habitat destruction, intensive land use practices and a host of other ailments are threatening wildlife like never before. It's obvious to natural resource specialists everywhere that to sustain the wildlife resources many of us have so freely taken for granted, more than just license buying sportsmen will have to share the financial burden. State income tax checkoff programs were designed to do just that.

Much has been accomplished through Pennsylvania's Wild Resource Conservation Fund since 1982. Through the breeding bird atlas project and other major surveys, we now have a better understanding of what animals and plants exist in the state and which species are in most need of assistance. River otters, bald eagles, ospreys and several other animals are now more common here, and through a variety of information and education endeavors, more Pennsylvanians are now more aware of our state's invaluable wildlife resources and what's being done to protect them.

Annual contributions to the checkoff program have averaged \$374,000, which includes about \$12,000 received through direct contributions. This is a modest sum compared to other states, no doubt because only about one in five state taxpayers is due a refund; and of those about seven percent contribute to the fund.

The immediate future of the Wild Resource Conservation Fund does not look particularly bright. In 1988 a second checkoff program was added, the U.S. Olympic Committee. While roughly seven percent of the taxpayers entitled to refunds had contributed to the Wild Resources Conservation Fund, that rate dropped to less than five percent after the second option was made available. Legislation to prohibit such competing checkoffs in the future is likely, but not for at least two years. Consequently, the Wild Resource Conservation Fund is anticipating revenue reductions of more than \$200,000 this year and \$250,000 in 1992.

As GAME NEWS readers and, for the most part, license buying sportsmen, you're already paying your fair share. Although from what Frank Felbaum, executive director of the fund, tells me, many of you have sent in contributions in response to the insert in last month's issue. Thank you. The way to really help this program, though, is to spread the word. Make sure all your nonhunting friends and relatives know about the checkoff option on state income tax forms and that direct contributions are welcome and certainly worthwhile. Let's try to convince everybody to get involved, to "Do Something Wild." —*Bob Mitchell*



I HAD BEEN SITTING for about 15 minutes when our drive started; before long I heard a shot but didn't think anything of it. I quickly became bored, but suddenly I looked up to see a buck trotting along. I pulled up and shot when it was 25 yards away—the deer kept going.

I Had It Made

By Paul C. Gsell

IN 1987, when I was 13 years old, I went upstate to Tioga County, where my father goes every year for deer season. I had always bragged how on my first trip I'd get that big one, the kind of trophy everybody dreams about. Once I got there, though, and saw what I was up against, I have to admit I really wasn't as confident.

Dad and I were staying on the farm of a friend named Stanley, along with four other hunters. Our accommodations were very comfortable. We had hot meals, warm beds, and could watch

football on the tube at night. Dad had always hunted on the same mountain, but this year Stanley suggested we hunt a different place. Five of us agreed, while another five, some of whom were staying at other farms, decided to go some place else.

Opening Day

On the opening day we got up early—well, at least it was early to me—about 6:00 a.m. It had rained constantly the night before, but we were glad to find it had stopped by morning.



THE BUCK was a huge 8-point; he had fallen with such force that his antlers were imbedded in the ground to the point that I couldn't pull them out. Dad had taught me how to get a deer—not what to do after I'd killed one.

We all ate breakfast, got ready, and then gathered outside around Stanley's old, beat up Dodge truck, which looked like it had gone through the mill many times. Excited, we jumped in and started off. The truck had no muffler and vibrated so much I wondered if we would ever make it to the mountain. Well, it did, and after we arrived we quickly spread out. We were surrounded by posted ground where we were hunting, so all the deer just moved back there in the boonies and never came out.

Got Bored

Dad selected a spot for me and then walked a short ways up the mountain and found a nice spot for himself. After an hour or so, I got bored and walked up to see how Dad was making out. He had only seen two doe. I told him I hadn't seen anything. We decided to do a little still hunting, so we spread out, headed down the mountain and then up another. I walked like I had never walked before. Dad took me through brush, around trees, and out old lumber trails. I thought he'd never stop.

Finally, after what seemed like miles, we started heading back. I couldn't believe how heavy a short, little 44 Magnum rifle can get. All the walking turned up nothing, though, except late night leg pains for me. No one warmed their barrels that day, except one hunter who downed a nice 3-point, which he got on another mountain,

from a stand where a buck had been taken on each of the past ten opening days. We didn't do much that night except talk, so it was pretty easy to fall asleep.

When I awoke the next morning I just knew something special was going to happen. The night before it was decided we would drive this day. I had never even heard of the word until then, and wasn't sure if I could handle it. The first and second mountains turned up nothing except flags. On the third mountain, however, it was different.

We were about to drive the mountain behind the barn on the farm where we were staying. As we started up the mountain Dad decided we'd be standers, so we stopped and he, a friend, Jim, and I jumped out of the truck. Dad and I walked down and chose a spot. The woods were on one side of us and about 50 yards down the mountain were a bunch of cut down trees. In the middle there was a clearing. I decided to sit in front of the downed trees and face up towards the clearing and woods. It looked like a perfect setup.

I sat there for about 15 minutes before the drive started, and before long I heard a shot off to my left, but I didn't think anything of it.

I was bored, so bored that I started writing my name in the gun oil on my rifle, erasing it and writing it again. Then I just happened to look up. I almost yelled. The first thing I saw was the antlers. It was a huge buck, trotting along, nose held high. I pulled up and shot when he was 25 yards away. He kept going, never even looking my way. I shot again and he still kept going, not looking around, stopping, or running. Finally, he stopped, 40 yards away, and turned around. We looked eye to eye and I thought, If you're foolish enough to stop, your foolish enough to get shot. That time I looked through the scope,

took careful aim, and pulled the trigger. Sure enough, he fell. I ran over and saw a hole in his neck. He was still moving, though, so I shot again. I couldn't believe it. Nervous joy went throughout my body. I even started to shake. I had never in my life had such feelings.

I immediately checked the rack. It was a huge 8-point, but he had fallen with such force that his antlers were so imbedded in the ground that I couldn't pull them out. Dad had taught me how to get a deer, but not what to do after I had it. I started yelling. Finally, Dad told me to sit down and be quiet.

After the drive was over, my fellow hunters gathered around me and my trophy. They couldn't believe I had lucked into one so big. Not saying a word, one of the drivers rolled up his sleeves and started field-dressing my buck. My dad was just glowing with pride. I guess he was proud that all his time, patience and discipline had paid off.

There I was, my first year hunting and I had a big buck. His rack had a 16-

inch spread and, we learned later, he weighed 175 pounds. I had shot him only four feet from a dirt road. All we had to do was bring the truck down and load him on. No dragging whatsoever.

Wouldn't Believe Me

That night, when I called my mother, she wouldn't believe me. She insisted on talking to my dad. When Dad told her, she didn't believe him, either. It took Stanley's wife, Sarah, to finally convince my mom that I had shot a deer.

Later that night I was so excited I couldn't get to sleep. As I lay there it dawned on me that my Dad has been hunting for more than 30 years, and his biggest rack fits inside of mine. I guess it's all downhill for me.

No more deer were taken the third day. We left at one o'clock and got home to Greencastle about six that evening. Everything had worked out just as anticipated. I had my big buck and everything was great. I'll never forget that day when I got my first deer, and I have to admit, I had it made.

Conserve '91

The Western Pennsylvania Conservancy's 1991 calendar features outstanding color photography of some of the state's natural areas. The day-to-day listings of places to go, things to do and interesting facts about our natural world make this calendar useful for everyone interested in the outdoors. Orders can be placed by writing Western Pennsylvania Conservancy, 1991 Calendar, 316 Fourth Ave., Pittsburgh, PA 15222. Price is \$6.36, delivered.





The Snowshoe Hare

By Greg Grove

MOST PENNSYLVANIANS probably think of snowshoe hares as the big-footed rabbits that thrive in the cold weather of the North Woods. That image is essentially correct, except that hares are not rabbits.

Snowshoe hares are named for the big hind feet that allow them to easily travel over deep snow. Snowshoes are also known as varying hares, a reference to their coat changes from a brown color in summer to white in winter. The snowshoe hare's scientific name is *Lepus americanus* (the cottontail's, *Sylvilagus floridanus*). Snowshoes are most closely related to two other cold weather lovers, the Arctic hare and the Alaskan hare. Both hares and true rabbits (cottontails) belong to an order of mammals called lagomorphs.

In the United States the snowshoe lives in the northern Rockies and parts of the Pacific northwest, and its range extends eastward through the northern Great Lakes states and into the higher elevations of New England, New York, Pennsylvania and West Virginia. Within Pennsylvania, hares are found primarily across the northern tier counties, the Poconos and, at least in the past, south to the Laurel Highlands. Of the dozen or so North American subspecies of snowshoe hares only one, *Lepus americanus virginianus*, is thought to be native to Pennsylvania.

At least two other subspecies have been introduced in past decades from New York, Wisconsin and New Brunswick as part of various restocking programs. For the most part, these introductions have not been very successful, especially when tried at elevations less than 1000 feet and in areas outside of the historical hare range.

At maturity, snowshoe hares are 18 to 20 inches long and their large hind feet are nearly six inches in length. Their average weight is around three pounds.

Snowshoes are rusty brown in summer and in winter almost pure white, except for black tips on their ears. Often the only way to spot a sitting hare against the snow is by its round dark eyes.

Unlike their distant cousins, the cottontails, snowshoes are strictly forest animals. They prefer young forests with plenty of dense undergrowth for food and shelter. In Pennsylvania, hares are likely to be found in hardwoods where saplings are abundant. In fact, snowshoes were rather uncommon in the state's mature forests prior to the great logging activity of the late 1800s and early 1900s. In the regenerating forests that followed—dominated by black cherry, birch, beech and tulip poplar—the snowshoe population increased dramatically about a decade after an area had been clearcut. Much of that forest land now, of course, is well beyond the sapling stage, and because of the sun-absorbing leaf canopy of the tall mature trees, there is much less understory to provide shelter and food for snowshoes. As a result, hare populations in Pennsylvania are now lower than they were during the '20s. Some observers believe that hares also suffer from competition for food with whitetails.

During the winter, hares eat primarily woody browse including twigs, overwintering buds and lots of bark from saplings of many tree species. The particular sources of winter food vary over the broad geographical range of the snowshoes, but woody browse is always essential and its availability probably plays a key role in sustaining hares through the winter.

As snow accumulates during the winter, snowshoes are able to browse progressively higher on saplings. It is thought that snowshoes in Canada benefit from winters with deep, accumulating snows because of the increased availability of browse. One

researcher suggests that female snowshoes produce more young following such a winter because of their improved nutritional status.

Summer food preferences, like those of the cottontail, are grasses and weeds. Snowshoes have also been observed feeding on carrion, such as the carcasses of winter-killed deer.

Like many other inhabitants of cold regions, including whitetails, snowshoe hares adapt to winter weather by reducing their physical activities (running, hopping, or movement of any kind) and by growing an insulating winter coat to better conserve body heat.

Digestion

Mammals do not produce the special digestive enzymes necessary to initiate the breakdown of tough plant matter for extraction of nutrients and sugar energy. Therefore, as do deer, cattle, horses, and other mammalian herbivores (plant-eaters), hares and rabbits depend heavily on bacteria in their digestive systems to start digestion of both grasses and woody browse. However, even with the help of billions of bacteria, plant digestion is still a big job. An indication of this is that the digestive tracts of herbivores are gener-

ally much longer and contain more chambers (extra stomachs) than those of other animals.

Snowshoe hares produce two types of fecal pellets. One is, more or less, the equivalent of those produced by rabbits—hard, spherical pellets of undigested material. A second type consists of soft pellets coated with mucous. Those pellets are eaten by the hare and pass through the entire digestive tract a second time. In this way, proteins and vitamins that were not absorbed by the digestive tract the first time are recovered and used by the hare. This represents an adaptation by hares to more efficiently extract nutrients and energy from their often nutrient-poor environment.

For snowshoe hares, breeding activity begins in mid to late March. It is stimulated by the increasing photoperiod (the daylight portion of the 24-hour day). This signal is received through the eyes and interpreted by the pituitary gland near the brain, and it initiates a hormonal response that results in the beginning of sexual activity. After mating, there is a gestation period of 37 days prior to the birth of a litter of two to four young. Healthy, mature female snowshoes produce two



and sometimes three or four litters per year. Often, the births of the first two litters are closely synchronized among nearly all of the females of a particular region. This occurs because, initially, most female hares begin breeding at almost the same time and nearly all become pregnant almost immediately. Following the births of the first litters, the females quickly breed again.

This prolific reproduction strategy produces many young in time for the easy-living days of summer. The survival of the species depends on this reproduction method because hares born late in the summer do not mature sufficiently to withstand the rigors of winter.

As mentioned earlier, hares are not rabbits. Anatomical differences that separate the two groups are body size, skull shape, and, of course, the exaggerated ears and hind feet of the hares. Rabbits are born essentially helpless, naked, and with eyes unopened. Hares, on the other hand, are born with a coat of hair, eyes open, and are quickly capable of controlled movement. Rabbits live in burrows and eventually find shelter in holes when chased; hares do not burrow and generally continue running when pursued, attaining speeds of 30 mph, making 10- to 15-foot leaps and moving with ease over deep snow.

In one respect, hares are similar to cottontails. The average hare has a short life expectancy, perhaps no more than a year. Ten to 20 percent may live two full years—very few survive beyond the age of two. There are many causes of mortality, starting with winter starvation and malnutrition-related difficulties that arise from overpopulation. As is also the case for whitetails and other northern animal species, it's the young-of-the-year hares that suffer most from the effects of winter and are most vul-

SNOWSHOE HARES share their range—and food sources—with other mammals such as white-tailed deer. Both animals consume browse during the winter months, and they compete for food to some degree. When the weather turns cold, snowshoes, like deer, reduce their physical activities to conserve precious energy.

nerable to predators. Principal snowshoe predators are lynx (in Canada and Alaska), bobcats, coyotes, weasels, foxes, hawks and owls.

When their population reaches its peak density in Canada, many hares are forced to disperse from preferred cover to more open areas where they become even more exposed to predators. Various diseases and parasites, as well as hunting and trapping, also take a toll on the hare population.

The seasonal change in coat color is the reason snowshoes are also called varying hares. Obviously the white winter coat serves as effective, though not perfect, camouflage in snow-covered areas. The winter coat also insulates the hare against the subzero temperatures that commonly occur throughout most hare range.

Molting

Individual hairs on the snowshoe do not actually change color. When hares molt, which they do twice a year, the new hair that grows is a different color. As with breeding activity, the signal for molting is the changing photoperiod, increasing hours of daylight in March and dwindling hours in October. The color changes do not happen overnight; each molt takes two months, during which the hares have a mottled appearance. By June the brown summer coat is complete, and by December the white coat has replaced that of summer.

The growth of the white coat is an excellent example of the process of natural selection. Presumably, early in their evolutionary history, hares were brown all year. At some point, a genetic mutation in an individual hare caused it to produce white hair during the autumn molt. This resulted in a hare that was difficult for predators to find and, therefore, one whose survival odds were higher. Once a beneficial mutation of this sort occurs in one individual, it can be inherited by at least some of that individual's offspring, which then also benefit. After many generations, descendants of the original white hare eventually displaced hares that re-

mained brown in winter because the white hares more often survived and were able to produce offspring with the same advantageous characteristic. In the language of the biologist, the hares with white winter coats were “selected for” by the evolutionary process.

Support for this hypothesis can be found in a Pacific Coast snowshoe subspecies that does not produce a white winter coat. This population lives in an area that does not have a regular winter snow cover. Whiteness would be a disadvantage because a large white hare against a brown background would be very vulnerable to predation. In this case, white winter coats are “selected against” by nature.

Population Cycles

A most intriguing aspect of snowshoe hare biology is the population surges and crashes that occur with remarkable regularity on a nine- to 10-year cycle. Also, predators that depend heavily on snowshoes undergo population changes seemingly directly related to the hare population. This is especially true of the lynx throughout much of the prime snowshoe range in Canada.



The first solid evidence of the extent and regularity of these population cycles came from trappers’ records and from Hudson Bay Company tallies of the number of lynx and hares trapped each year over the course of a century. The cyclic changes in fur harvests of both species are obvious and it’s particularly interesting to note that lynx fluctuations generally lag behind those of hares by about a year.

For a long time it was believed that the two species tightly regulated each other’s population level. As hare numbers increased, there would be more food for lynx and, therefore, more lynx would survive the winter and more lynx kittens could be produced. Eventually, however, in theory the lynx would become so abundant that the hare population would be decimated by lynx predation and subsequently crash. With few hares remaining, many lynx would starve and lynx reproduction would be depressed. With few lynx remaining, the hare population would again expand, completing the cycle.

This sounds logical but omits at least one very important factor. Although the hare and the lynx are the principal players in this story, other species’ population fluctuations are also thought to be linked to the snowshoe cycle. The existence of other predators possibly plays a role, and perhaps other prey species, such as grouse, that become the focus of predators after the hare population has crashed.

The amplitude of the cycle (the amount of variation from cycle peak to cycle bottom) is always very large in prime snowshoe range. In some research areas in Alberta and in the Yukon Territory, at the peak of the cycle there may be 5000 hares per square mile and fewer than 50 per square mile at the low point. Generally, following the peak year, there is a decline phase of two to four years. The cycle hits bottom.

SUMMER FOOD PREFERENCES for the hare are similar to that of its cousin, the cottontail, and include grasses and weeds. The brown coat sported by the snowshoe in summer is usually complete by June. Some hare subspecies remain brown all year.

tom for a year or two, and then there is an increase phase of three to five years before the next peak. Winter and spring weather conditions probably affect the exact length of the cycle phases. Peak years are fairly well synchronized throughout most prime hare range.

Through the long-term efforts of researchers such as Dr. Lloyd Keith of the University of Wisconsin, a better understanding of the cycle is emerging. According to Keith's hypothesis, the single most important factor that regulates hare numbers and causes their dramatic population crashes is probably the supply of woody browse, their principal winter food resource. In brief, Keith's research suggests that, as their numbers increase over a period of several years, hares consume more and more of the available browse. Their stripping of sapling bark kills nearly all of the saplings in an area and prohibits production of new bark, twigs and buds.

Eventually, during a peak population year, the number of hares becomes greater than the number that can be supported by the remaining available browse. At that point, many hares starve; others may survive for a while on a reduced caloric intake but become malnourished and prone to disease, and easy prey for an increasing number of lynx and other predators. Only after the hare population crashes can tree seedlings begin to grow and regenerate the sapling stage forest so crucial to hare survival.

Thus it is believed that snowshoe hares are primarily regulated by the interaction between them and their winter food resource. Predators certainly contribute to hare population declines, but it remains to be seen how important the role of predation is compared to that of food supply.

It should be noted that the hare population **SNOWSHOE HARES** accomplish their seasonal color changes through molting, in winter replacing brown hair with white. Their coats take on a mottled appearance during the transition. The snowshoe's winter coat is pure white by December.

ulation cycle persists even in areas from which lynx have been removed. As is probably the case in most predator-prey relationships, the predator probably does not strongly regulate the prey. Conversely, however, lynx population levels are very closely tied to hare availability.

Plant Defenses

One additional, but as yet unproven, potential factor in the population crashes of snowshoe hares involves plant defense mechanisms. It is well known that many plants have evolved the ability to produce unpleasant chemicals to protect against overbrowsing and grazing by animals. Some scientists believe that when hares have eaten all of their preferred winter browse, they are forced to eat bark and twigs of plants with noxious or even poisonous chemicals. It is thought that ingestion of these chemicals, along with malnutrition, may be a cause of mortality or, at least, contribute to making hares sick or feeble enough to be easy prey. The importance of toxic chemicals in browse, however, is still a point of considerable controversy among scientists.

In recent decades, well-documented population peaks have occurred in Canada during 1961, 1970 and 1980. In southern fringe areas of snowshoe range, little is known of population characteristics. In areas such as Pennsylvania, snowshoe populations are not dense and exist in scattered pockets. Not surprisingly, because of the modest numbers and less than ideal habitat,





there do not appear to have been large cyclical population swings in our state. However, because of the large-scale habitat changes that have occurred throughout the state during the last century, it is nearly impossible to document a naturally occurring 10-year cycle.

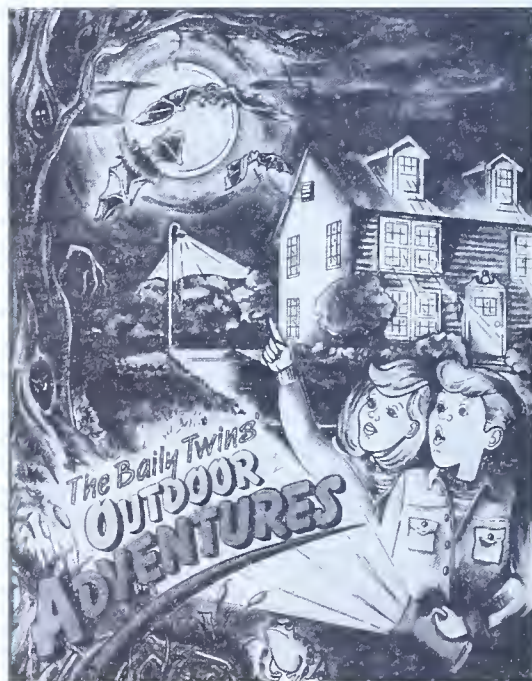
Perhaps relevant to Pennsylvania hare population is information gathered by West Virginia University's Maurice Brooks between 1925 and 1955 on an isolated snowshoe population in the high mountains of West Virginia. In 1955 the West Virginia hare population, spread over a dozen eastern counties, was separated by at least 100 miles from any other hare population. During this 30-year period, hares were exclusively observed at elevations

above 3000 feet and were usually found in areas with abundant red spruce. In areas where red spruce had been removed, the hares persisted in second-growth forests of maple, beech and birch (similar to regenerating forests in northern Pennsylvania) with rhododendron undergrowth.

Fairly large (with amplitudes of 10-fold, estimated) population cycles occurred in 1932-33, 1941-42 and 1951-52. (Farther north, similar peaks were observed in more typical snowshoe range in northern Minnesota in 1933 and 1942). If this cycle continues in West Virginia, there would be cycle peaks in the same years as those that have occurred in Canada since the 1950s.

Even if a hare population cycle occurs in Pennsylvania, its amplitude must be very small compared to the cycles in prime hare range. In essence, the snowshoe hare is primarily a denizen of northern climes, with Pennsylvania largely representing the species' southernmost range. Nonetheless, although many sportsmen don't realize it, we do have a population here that's supporting countless hours of enjoyment and harvests of nearly 10,000 hares a year.

The Baily Twins' Outdoor Adventures is an educational publication designed to teach youngsters environmental awareness and to show them ways they can become better caretakers of the natural world. The main characters encourage students to involve themselves in conservation efforts. It is geared toward children in grades four through six, but innovative teachers will be able to integrate the book into lesson plans for all grades. The publication, financed by the Wild Resource Conservation Fund, is available from the Game Commission. Single copies are free; information on classroom quantities and the accompanying teacher's guide is available on request. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.





John Plowman

ONE WOULD NOT NORMALLY expect to find such an expanse of coastline on a typical game lands, but the recent acquisition of the USX property features about 2½ miles of Lake Erie shore. Thanks to the efforts of the Western Pennsylvania Conservancy and other groups, the Commission was able to obtain this tract for about half of its appraised value.

There's a New State Game Lands . . .

On the Shores of Lake Erie

By Joe Kosack

PGC Information Specialist

FROM THE OUTSIDE looking in, the 3131-acre tract looks like an impenetrable jungle of saplings, briars and shrubby undergrowth. But within this dense tangle of vegetation wildlife abounds, and thanks to the Western Pennsylvania Conservancy, and others, this former USX Corporation property is a new state game lands, SGL 314, which will forever remain an outstanding natural resource for wildlife and outdoor enthusiasts.

Every fall finds migrating waterfowl and woodcock dropping into this soggy

property. Also on the tract are abundant populations of deer and turkey which have been virtually untapped for decades. Fox squirrels and cottontails are frequently seen along the network of dirt roads traversing the property. Those and other wild wonders, however, seem only appropriate for a place that has been a no-man's land for a long time.

Equally attractive is the property's lake frontage. Abutting the Pennsylvania-Ohio border, the tract has about 2½ miles of bluffs towering along Lake Erie. The frontage is the longest unde-

veloped section of shoreline remaining on the southern shore of this expansive lake and offers a breathtaking view of lake activities and the mesmerizing waves rolling in from the distant watery horizon.

Prime Real Estate

Obtaining this prime piece of real estate was not an overnight transaction. Negotiations with USX—formerly the United States Steel Corporation—took years to conclude. But with the persistence of USX Chief Executive Officer Charles A. Corry, Western Pennsylvania Conservancy President John Oliver, financial assistance from the Richard King Mellon Foundation, and the support of local sportsmen's organizations, the Game Commission has finally obtained this beautiful sector of Lake Erie wetlands and shoreline.



In essence, USX sold the property to the Richard King Mellon Foundation for \$6.5 million. The property was then turned over to the Western Pennsylvania Conservancy, which last month conveyed the tract to the Game Commission. The agency will pay \$3 million for the parcel, in two installments over a two-year period. The deal, in effect, represents a \$3.5 million savings for the Commission and, more importantly, protects an outstanding natural resource from the pressures of development, a threat this property has been facing for almost a century.

This parcel was once part of a 5000-acre tract in Erie County and Ohio's Ashtabula County purchased by industrialist Andrew Carnegie shortly after the turn of the century. On the property, Carnegie planned on building the largest integrated steel mill in the world. The land purchase was part of a grand plan Carnegie had formulated to transport iron from Minnesota's Mesabi Iron Range, where he also had acquired substantial land holdings, across the Great Lakes to northwestern Pennsylvania.

For one reason or another, however, Carnegie didn't proceed with his lake-front complex plan. Instead, he formed the Carnegie Illinois Steel Company and built a mill at the Lake Michigan port of Gary, Indiana, to handle the ore from the Mesabi.

With the Lake Erie steel mill plan shelved, at least for the time, Carnegie—or someone in his corporate regime—decided to subdivide the tract and lease parcels to farmers. The property, dubbed Conneaut Farms, contained about 290 farms. Farming the swampy land, however, was no easy chore, and by the early 1940s even the most ambitious of the farmers who had tried to scratch a living from the land tossed in the towel—not to mention the plow.

HANK STANKEWICH, land management group supervisor, and his Food and Cover Corps members have already completed many habitat improvement projects on this new—and unusual—state game lands.

From 1945 to 1965, U.S. Steel leased the lakefront property to people who built cottages. That venture turned sour, though, when high water levels began to erode the shoreline bluffs the cottages were built upon. About a dozen natural gas wells were drilled on the property in the 1940s, but that enterprise eventually fizzled, too.

From 1955 to 1960, the corporation performed improvement cuttings on the woodlands in the property. But in 1963, to squeeze some profit from Conneaut Farms, U.S. Steel sold nearly all trees eight inches or larger in diameter to a lumber company. In addition, the corporation razed the 12 farmhouses remaining on the property.

In the late 1960s, chairman of the board Edgar Speer blew the dust off Carnegie's Lake Erie steel mill plan. Corporate officials refined the proposal to meet contemporary standards, and by the mid-1970s the company was ready to move its steel mill plan from the drawing board to the shores of Lake

Erie. Zoning for the tract was changed from agricultural to industrial, environmental impact studies were launched, and federal and state construction permits were applied for.

People who lived near Conneaut Farms were excited about the prospect of having a massive mill built nearby. It promised jobs closer to home in this rural setting and would certainly be an economic boon for the area municipalities. But governmental reviews of the project were not quickly and routinely granted, because of ongoing efforts to clean Lake Erie.

The mill plan eventually cleared the governmental reviews, though, and U.S. Steel began to prepare building arrangements. But then, just six months before construction of the new facility was to begin, Speer died. He was succeeded by David M. Roderick, formerly a U.S. Steel corporate financier, who placed the plant project on hold shortly after he took office, and then eventually terminated the mill endeavor.

A ROYER upland vegetation cutter—the “Woodsman”—was used to create strips in the thickets of the reverting fields, providing thousands of yards of food lanes to support wildlife. The Woodsman also cleared roads nearly choked with vegetation and opened areas for parking lots. The edges of the food strips provide excellent cover for many animals and good nesting sites for birds, especially woodcock.



Roderick decided against building the new mill because America's prominence in the world steel market was beginning to slip. He saw that foreign steel companies, especially those in Japan, were becoming fierce competitors with their then state-of-the-art, basic-oxygen furnaces. U.S. Steel's factories, on the other hand, were using open-hearth furnaces, which were quickly becoming obsolete. In addition, Roderick recognized other concerns affecting the company's productivity and profit margin. To ignore those problems and build a new super plant, he felt, would seriously threaten the U.S. Steel Corporation.

For several years, then, Conneaut Farms remained a quiet property. Speckled aspen, red-osier and silky dogwood, and other shrubs continued to inch skyward in the reverting agricultural fields. Stands of red and silver maple saplings pushed upward over the timbered wetland areas, creating a canopy so thick sunlight could not reach the forest floor. Little grew beneath the maples because the leaf litter created by those trees lacks substantial amounts of

nitrogen and calcium, two very important nutrients for plant growth.

As the vegetation reclaimed this once-busy farmland, creating the jungle that occupies the property today, wildlife populations flourished. Most of the wildlife maintained residency in the dogwood thickets and stands of aspen and oak, but others, such as waterfowl and semi-aquatic animals, inhabited the streambanks and wetlands.

Word spread of the property's growing fauna, and people began traveling Childs, Rudd and State Line roads to watch deer feeding along the open roadways. The vegetation and tree canopy apparently had become so thick that few of the food staples deer rely on were available in the tract's interior. The open areas created by the roads were the only areas where deer had a reliable food supply.

Although township roads flanked and bisected the U.S. Steel property, the corporation posted "No Trespassing" signs around its perimeter after it decided to table the plant plan. People still used the property, though—for a dump. Discarded refrigerators, stoves, mattresses-

AT ONE TIME thoughtless individuals dumped refuse—refrigerators, stoves and the like—on the property known as Conneaut Farms. Now, State Game Lands 314 is intensively managed for game and nongame species, and through the efforts of conscientious sportsmen it will remain an unspooled recreational area for everyone to enjoy.



ses and other trash started to appear along the roads.

Through a management agreement with the Game Commission, while negotiations to acquire the property were still taking place, Hank Stankewich, PGC Northwest Region land management group supervisor, and his Food and Cover Corps members began collecting the trash from the roadsides. Five men spent three days to complete the chore. Next, the crew posted "No Littering" and "Welcome to State Game Lands" signs along the property's boundaries. The littering and dumping decreased significantly after the signs were posted and WCO Jack Farster and his deputies began patrolling the property.

The agency's next move was to bring in a Royer upland vegetation cutter to create strips in the thickets, open areas for parking lots, and to reclaim roads crowded by vegetation. After six weeks of work, the machine had cut thousands of yards of feeding lanes in the reverting fields.

The succulent shoots now sprouting in those lanes provide food for deer, rabbits, groundhogs and a host of other animals, and the brushy edges flanking the strips offer ideal nesting sites for many birds, most notably woodcock.

Another reason for cutting the strips was to improve woodcock breeding opportunities. In 1987, Game Commission biologist John Kriz rated the tract one of the state's top woodcock breeding grounds. He went on to report, though, that as a breeding ground, the property was rapidly deteriorating because shrubs and saplings were filling in the open areas the birds use as singing stations during the spring mating season. To rectify the decline in habitat and bolster the woodcock's ailing population,

the Royer was dispatched to reclaim the open areas.

Stankewich was impressed with how quickly the Royer cutter helped make the necessary habitat improvements. "The work that machine did in six weeks would have taken a Food and Cover Corps crew four years to do," he said.

The Royer also was used to clear brush from the shoulders of roads cutting through or bordering the tract. And, after the vegetation was cleared, a Springfield Township work crew cleared several miles of sediment-filled drainage ditches running parallel to the roads.

Ample Parking

So far, eight gravel parking areas have been created on the property and most of the roads leading to its interior have been closed. More parking areas will be constructed soon, and plans are being developed to establish a hiking trail on the old railroad bed that runs through a swampy woodland from the property's former ore storage site to Rudd Road.

Other plans include cutting borders along the woodland edges, creating food plots in some of the woodlands, and placing waterfowl nesting structures in wetland areas.

The Game Commission also has enlisted the assistance of some particularly talented wildlife engineers to fur-

BIRD HUNTERS will find this new game lands to be top-notch habitat for many game species, including woodcock, pheasant, grouse and waterfowl. The tract is one of the state's top woodcock breeding areas, and the agency is paying particular attention to this declining species as it manages SGL 314.





This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

ther shape this property. Shortly after the tract was sold by USX, a pair of beavers was released in a sector of forested wetlands. A few months later, the handiwork of the large rodents was beginning to attract wood ducks and other waterfowl. The trees dropped by the beavers created escape outlets in the thick canopy for the birds and also provided ideal cover along the water's edge.

Because the tract is 49 percent wetlands and contains 5000 feet of waterways, its acquisition represents a key component in achieving the Game Commission's goals associated with the North American Waterfowl Management Plan. Briefly, the plan, implemented in 1986, is a cooperative effort between the United States and Canada to preserve and improve waterfowl habitat across the continent.

The acquisition of the USX tract, located in the plan's Lower Great Lakes-St. Lawrence Basin focal area, will go a long ways toward attaining the Game Commission's goal of creating 3500

acres of wetlands in the northwestern corner of Pennsylvania by the year 2000. In addition, the agency plans to enhance 9500 acres of wetlands and provide protection to another 9000 acres in the northwest sector of the state by the turn of the century.

Although most of the Game Commission's habitat enhancement plans for the USX land will be geared toward waterfowl and woodcock, other wildlife will prosper from the changes, too. Deer, grouse, pheasants, beaver, mink, muskrats and raccoons will thrive in this tailored environment. Rails, bitterns and black terns will use it for breeding grounds. Eagles, egrets and herons will use the land for hunting. Judging from the listed beneficiaries—and bear in mind there are many more—it's not hard to understand why wetlands are considered one of the most important and productive ecosystems in Pennsylvania.

The USX property, located on the Lake Erie Coastal Plain, represents an asset of immeasurable worth to the Game Commission's wildlife management efforts. Just as importantly, though, it offers outstanding recreational and educational opportunities. From the trails and old railroad beds, people can observe the spectacular courtship flights of woodcock, watch beaver preparing for winter's ice-up, or study the slow-motion efforts of a great blue heron working the shallows for a meal. It also is a place where people can learn about food chains, life cycles, animal communications, habitat carrying capacities and other natural wonders.

Overall, this tract seems destined to become another gem in the agency's game lands system. Its features, which will be polished to perfection by the Food and Cover Corps, will attract creatures like a magnet. And where wildlife goes, people follow. So grab your gun, camera, hiking stick or binoculars and head out to this new game lands. Its attractions are worth the trip and ought to keep you occupied for a long time.

THE DRIVE rounded a bend in the woods, and the yelling of the drivers could begin to be heard. I stood on my watch, becoming more alert as the noisy hunters got nearer. I was in an ideal spot, at the edge of a hayfield, along the tree line of a big woods and adjoining a brushy field. The stand produced year after year for me, so I felt certain I'd get some shooting.

It was the second drive of the 1989 antlerless deer season, and only one shot had been fired as the clock ticked off the first hour of hunting. As the drivers passed my stand I fell in line with them to complete the push out to the dirt road where other watchers were posted. I'd gone only a couple hundred yards, whooping and hollering my way through the thick brush and young forest growth, when shots rang out downhill just in front of me.



A Half Yard of Licenses

By T.R. Them

I heard a good hit just as I saw a big deer dashing directly toward me. Up came my homemade 45-70, and as the sight found the bounding deer, the old hand-to-eye coordination took over. Soon after the gun said bang I found myself tagging my first deer of the season.

First deer of the season? Yep, 1989 was the second year bonus deer tags were available here, and I got lucky. The Pennsylvania deer hunting regulations worked in my favor, and the Bradford County Treasurer sent me a nice little brown tag and bonus license. I'd bought my 1989-90 license early in September, promptly hung it on my hunting jacket and then went out to shoot some woodchucks.

This tag took up about six inches of space on the jacket, and the landowner's antlerless tag the treasurer had sold me later that month took up another six inches. Adding the bonus tag made for an even half yard of licenses

decorating the back of my blaze orange deer hunting jacket. So I was ready to face the 1989 deer season, with a backful of license tags and my trusty rifle, made in 1972, along with a pocketful of cartridges and abounding confidence to see me through the season.

I didn't see any respectable bucks in the first two weeks, so when Bob Bell and Skip Eckert pulled into the driveway the Sunday before antlerless days, I informed them that this year I would do the shooting and they could do the chasing. I was putting the finishing touches on an outdoor meatpole when they arrived, and I explained the necessity for it by reminding them that the 12 deer our gang had taken the year before made for a real mess of the garage when we skinned them out. The lady of the house was a bit irate at the results, and she didn't want to hear about how cold it was or that the water froze in the hose when we tried to clean things up.

After properly admiring my new con-



struction project, we proceeded to sight in our rifles. Bell's 308 and 7mm-08 were reasonably close to being on target. "Good enough for an old man with failing eyesight," I told him. Skip put his lever-action 308 on the paper, and his, too, was close enough. As usual, my blonde maple stocked 45-70 was right on, and I told the boys that I'd have to take *two* cartridges into the woods this year, instead of one, as I showed them my mighty, half yard, display of licenses. Bell tried to brag a bit about the two tags he had filled out the year before, and Skip was still making excuses about his unused 1988 antlerless tag, but I paid them no mind. I told 'em it was a brand new season, and that I was gonna be the lucky one this year.

As I gathered up my tools to put them away the three of us went into the house to do some serious planning for the next day. The roster forms were ready to be filled in, and it looked like again this year there would be 12 hunters in our group, including Granny Jackson, my famous mother-in-law who has been my hunting companion for the past 40 years, here in Pennsylvania and all over the West. We've chased all kinds of game, big and small, through the years, and it seems that no one is talking her out of going deer hunting in the fall. As long as there's a spark in her eye I expect to see her toting her old lever-action 300 and going out with her in-law, his buddies and her children, grandchildren and great-grandchildren. Sure enough, she's earned the right to be catered to, so we always give her a favored stand and no longer insist that she go hollering through the woods.

As Bob, Skip and I sat talking, I slipped a spool into the VCR and showed 'em some of my "pets" I'd photographed earlier in the day. You should have heard the gasps as a flock of more than 20 turkeys appeared—up close—on the screen. They accused me of taking pictures in someone's farmyard or, at best, having copied another tape to get that kind of action. No amount of convincing seemed to have any effect, but I told them the birds were a resident flock on my place, and were often seen during the year. Just then Skip looked out the window which commands a view of the hill behind the house. Sure enough, there was the flock of 22 turkeys, feeding again in the big hayfield. The attraction was the result of spreading manure on the big hayfields, and the birds know enough to show up almost before the noise of the tractor dies away after dumping its load.

The guys didn't really believe me when I told them there were as many deer in my woods as the turkeys they'd just seen. They listened as I informed them that once again lots of saplings had been skinned up by the rubbing bucks, lots of scrapes were renewed daily and that at least six nice bucks had been taken off my hill during the past two weeks. I also reminded them that the previous year had been the same, and that we'd taken the dozen deer on the hills above and below my house in only a few hours. So, the prospects this year were as good as last—all we had to do was find 'em and hit 'em.

The rest of our group, 12 in all, showed up early the next morning, and the roster was completed. First light saw the gang ready to start the drive up the long gully on the hillside below the house. Watchers in place, the drive ended with the first deer of the day, tagged by Dick Jackson, Granny's son. Next came the drive above the house, when Bell hit his deer at very short range. "Good enough for an old man with failing eyesight," he told me.

"Sure," I said as I tagged mine, "but it took an alert, experienced young guy

like me to push it out to you at the right distance for you to connect.” So there we were with three deer in little more than the first hour, and I still had one more tag to go, with lots of eager drivers to push for me. Some of the deer from my woods had gotten past the watchers and gone back into the first woods driven. Whereupon it was driven again, with my nephew Dell and his companion scoring. Score five now, and time out for lunch.

Into the rigs, drive about 20 miles, and we were ready to hunt on ground familiar to my son-in-law, Terry Cobb. We put people in place to watch and drive. Walt, Terry’s dad, joined us for this afternoon of hunting. A short drive later, Terry, son Bill and Granny put tags to some fat Bradford County deer. Up to eight now, with a couple of hours left to go before dark.

I stood on the lip of a farm pond, overlooking some open fields, a sidehill of evergreen trees about 12 feet high, and a row of big trees off to my left. The drive was ending, and I could see the orange coats near the edge of the woods, and several more out in the field farther away. Just then Dick yelled, “Deer goin’ uphill.”

Looking for all I was worth, I finally saw a dark shape sneaking along the edge of the woods about 20 feet inside the tree line. The scope atop the 45-70 instantly centered the deer, about 100 yards out. The deer had about 15 feet to go before disappearing in pines on my right. No time for any kind of rest, I was in the hasty-sling condition, which would have to do, and touched off as things looked right while swinging up through the target. As the rifle recoiled I saw the deer drop out of sight. I rammed in another round, the deer showed again, moving through the trees. Only this time, all I could get a bead on was the back end. Oh well, I figured as I fired again, a high spine

shot should do it—it did, and then some. That was number nine for the first day, and time to quit.

That night after dinner, Bell and I let the younger members of the gang do the honors at the meatpole. As the skinning progressed, each hunter in turn took his ribbing about poorly placed shots on his deer. Not Granny, though; she was immune from kidding and, besides, her shot was right in the boiler room, with no meat spoiled. I wasn’t so lucky, though; my second deer had been hit in the same place, on the first shot, but the second shot had taken the tip of the spine and the top of the hams with it. It looks and sounds like I’ll never live that down, ’cause the guys were still kidding me the next day, telling me I’d used three shots to get two deer.

We went back at it Tuesday, pushing deer for Skip, Walt and Jonathan Jackson, Granny’s great-grandson, and nephew Gary. No luck here, but when we got back to the base camp, deer tracks were in the snow just three feet from my garage door—the second best deer stand in Bradford County.

The best stand in Bradford County? Bell knows where that one is, and he isn’t telling . . . wants it again next year, along with a half a yard of licenses!



GRANNY JACKSON, the author’s hunting companion for many years, was immune to the kidding others endured about poorly placed shots. Her doe was cleanly shot through the vitals; no meat was spoiled.



Pioneer Life

By Mike Sajna

IN NOVEMBER 1791, a Huguenot family named Tome loaded its worldly belongings onto a keel boat and started up the Susquehanna River from Harrisburg. For three weeks they struggled up the Susquehanna, and then the West Branch and Pine Creek until, finally, they reached Slate Run. Jacob Tome, head of the family, had already purchased 400 acres of land there and hired a crew of men to build a house.

Instead of a home, though, what the family found when they landed at Slate Run were four walls and a roof. A man of his word who took others at their word, Jacob had made the mistake of paying the builders in advance. With money in their pockets, they soon quit the job, leaving the house without chinking, a chimney, door, windows or floor—bushes 10 feet high grew in the center. The family survived its first night in the wilderness huddled around a fire.

Of course, unforeseen problems and hardships were not unusual on the frontier. But Hollywood has distorted national history so much that Daniel Boone and Davy Crockett are more associated with Fess Parker than the real flesh and blood heroes; true pictures of what it was like for people back then are rare.

Pennsylvania is fortunate, however, that Jacob Tome's son Philip published, in 1854, *Pioneer Life; or, Thirty Years a Hunter*, perhaps the best book ever written about life on the Pennsylvania frontier after the Revolution. Only nine years old when the family arrived at Slate Run, Philip spent the next 64 years roaming the region between Pine Creek, the Allegheny River and the West Branch.

"It is said that truth is often more strange than fiction," Tome writes in the introduction, "and those in pursuit of the marvelous will not be disappointed

in perusing these pages, as they are full of scenes in Border Life, accidents, and hair-breath escapes."

Tome's adventures included run-ins with bears, panthers, wolves, elk and rattlesnakes, typically occurring when the animals were either cornered or caught by surprise. They were, perhaps, the ultimate in excitement for the 19th century reader, and they still hold a certain fascination for Pennsylvanians because of their setting.

As opposed to adventure, what makes *Pioneer Life* really interesting to today's reader are scenes of the land, daily life, folklore and the ingenuity of the settlers. For example, the following describes the method two of Tome's friends used to ward off the gnats when a fear of rattlesnakes forced them to sleep in a canoe anchored in the middle of Sinnemahoning Creek. "They accordingly laid pieces of bark cross the canoe, covered them with clay, and built upon it a fire of rotten wood. This raised smoke that protected them effectually."

Preserving meat, both at home and in the field, in those days before refrigeration meant salting and smoking. Tome writes that far better results were gained with a mixture of salt and saltpeter than plain salt. A pint of the concoction was sufficient to preserve an entire deer. The meat was cut into thin slices, dusted with the mixture and wrapped in the animal's hide for 12 to 24 hours. Then a rack was made from green wood, the meat spread over it, and a slow fire built underneath.

Because fresh meat is better than salted or smoked, hunters sometimes used mountain springs to keep meat from spoiling until they got it back to their homes or camps. Tome butchered his elk and deer where they fell, and then wrapped the meat in the hide and buried it at the head of a cool spring. If

it was late in the day and he had taken an elk or large bear he could not move by himself, he field-dressed the animal and scattered gunpowder and sulfur around it to keep away wolves and panthers.

Beaver is the furbearer most often associated with trapping on the frontier, but Tome trapped everything from fox and wolves to panthers and bears. His favorite wolf bait was venison; for fox he used bait fish or eels. He roasted the venison or the fish, and then dragged it through the woods to his set, leaving a scent trail that he claimed the animals would follow for quite a distance.

Trap "House"

Bears and wolves were sometimes trapped in numbers with the aid of a "house." This set was a hole dug about 10 feet into the side of a bank in an area where wolves or bears were known to cross a stream. From inside the hole an opening was dug into the roof and a trapdoor built into the opening. The trapdoor was secured, and the area above it was baited and left to stand for several months so the animals became accustomed to it. Once the animals' hides were prime, the trapdoor was set. "If a female is the first to fall into the trap," Tome writes, "the others will keep running about over the trap door, and one after another will fall in, until the greater part of the pack is caught."

Snakes have unfairly suffered a bad reputation since Adam and Eve were driven from the garden. But Tome and

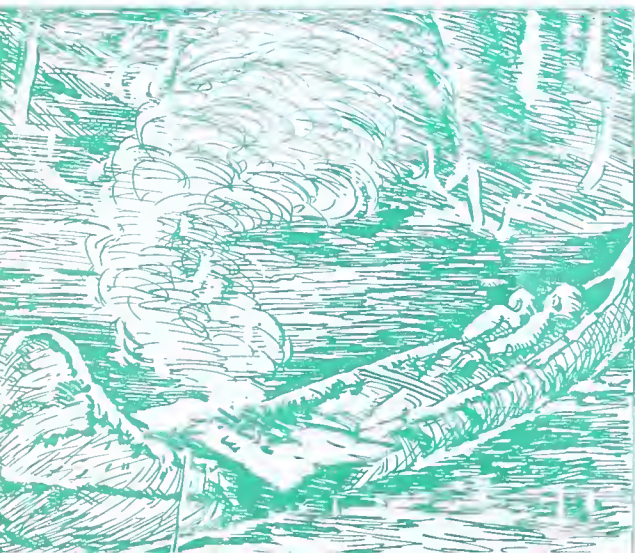
many of his contemporaries seemed to have had an obsessive fear of them, and a determination to kill every one they encountered. Certainly poisonous snakes were more numerous and dangerous in those days of tractless forests and no hospitals, but more fear arose out of old wives' tales than fact. Like that of the hoop snake, which he reports but doesn't actually claim to have seen.

"When preparing to make an attack," he writes, "it bends itself into a circular form, and rolls over the ground like a hoop, striking its spike with great force into the object of its attack. So deadly is the venom contained in this spike or horn, that it is fatal even to trees. In one instance with which I was cognizant, one of these snakes rolled at a man, who avoided it, by stepping to one side, and the snake, being under such velocity that it could not turn, struck its horn into an elm tree with such force that it could not extricate it. The snake died, hanging there, in two weeks, and the tree was lifeless at the end of the month."

Tome also claims to have watched rattlesnakes charm rats and squirrels, and black snakes climb trees to charm birds. He tells of racers holding their heads 18 inches high and gliding over the ground as fast as dogs. Once, he writes, a racer 11 feet long rose to stare him in the eye while he was plowing.

Despite all of his talk and fear of snakes, however, Tome reports treating only two people for snakebite during the years he spent in the woods. "A young man of my acquaintance was once bitten, and I immediately dug a hole in the ground, eighteen inches deep, into which the leg was placed and covered with earth," he writes. "At first he experienced no pain, but in a short time it became so severe that I was compelled to hold him down, but in three hours he fell sleep. After sleeping two hours he awoke, and the leg was

FEARFUL OF SNAKES on the shore, two of Tome's friends parked their canoe in the middle of the Sinnemahoning. They built a fire upon a bed of clay and bark, the smoke from rotting wood warding off swarms of gnats.



entirely free from pain. Removing it from the earth, it was very white, and the poison was all drawn out."

Other remedies involved applying a poultice of red onions, salt and gunpowder to the wound, and drinking juice pressed from the leaves of rattlesnake-weed or ox-wood. He describes rattlesnake-weed as a three- to four-foot high lowland plant that has a slender stem and limbs like those of a sunflower.

Even people who have never held a rifle or shotgun in their hands know that hunting was an important part of life on the frontier. In Pennsylvania, deer, elk and bear were the most sought-after animals: deer and elk for meat and hides, bear mainly to make oil for cooking. Since hunting was much more a practical activity than sport, however, the methods used were quite a bit different than those used by modern hunters. Many of these practices have been outlawed for more than a century.

Hunting deer with dogs, for example, has been illegal in Pennsylvania since 1873, but good dogs were a critical part of the hunter's kit in the early 19th century. Tome preferred larger dogs for his hunting and recommended "half bloodhound, quarter cur and quarter grayhound" as the very best. Two dogs of such a mixed breed were better than four smaller ones, he maintains, claiming his would lose only one out of 10 deer once they picked up a trail.

Another animal with an evil reputation was the wolf. Most people believe the pioneers were frightened to death of wolves, but Tome made an effort to keep them around his home and have them accompany him on hunts.

"We would often look up the [Pine] creek in the morning, and see deer coming at top speed," he writes, "followed by three or four wolves—sometimes two on each side of the creek. We

ELK WERE NOT an uncommon sight for Pennsylvania's early settlers; herds of 40 or more animals were often seen along the Pine, Kettle and Young Womans creeks. Tome often hunted the big animals, and elk meat was a regular part of the pioneer's diet.

would immediately prepare and go out to meet them. Sometimes we captured the deer with very little trouble, but often the wolves would catch and spoil it before we came up. In this manner the wolves ran deer from the first of July until the last of January."

To help keep the wolves nearby and running deer in his direction, Tome would always leave them a share of any deer they helped him obtain. If he failed to kill a deer, he would often catch fish and leave them on the shore for the wolves. Sometimes the wolves even worked with his dogs to corral and bring down deer, but such occurrences frequently ended in fights.

Hunting over salt licks at night was another method employed by the frontiersmen. During summer forays into the woods, Tome would search for natural licks where deer had been digging. If he found none, but knew an area held a good herd of whitetail, he would make his own lick by drilling holes into rotted logs and filling them with his salt and saltpeter mixture.

"About a month after I had prepared a log, I visited it, and if the deer found it, I built a scaffold near it . . . and patiently awaited the approach of the deer," he writes. "If none came during the day, I prepared a torch of pitch pine, sometimes adding lard or bear grease, which I swung upon a pole reaching from the scaffold to the ground. The torch was attached to a crane of withes and bark, made to slide upon the pole, and slipped down by a cord to within three feet of the ground.



A reprint of Philip Tome's *Pioneer Life or Thirty Years a Hunter*, is available, for \$20.58, delivered, from the Lycoming County Genealogical Society, P.O. Box 3625, Williamsport, PA 17701.

As the deer came along, they would stop and stare at the light, forming an easy mark for me."

Fire hunting at night from a canoe was another method that took advantage of the whitetail's fascination with light. It was done with a crew of hunters, one steering in the stern, another sitting in the center of the canoe with a torch and a third armed with two muskets in the bow. "Sometimes they would stand still long enough for the hunter to bring down a second one with the other gun. At other times they would start away, when we would wave the light, and as they ascended the bank they would become frightened at their shadows, thinking it was a wolf or panther, and run directly to the light, where they remained looking at it, till we could get another and perhaps two more shots at them."

Expeditions

Like his methods, Tome's hunting expeditions were quite a bit different than today. To begin with, the season usually started in July or August, as soon as the deer and elk had recovered from the previous winter, and continued into February. Hunters would often be gone from home for a month or more and equipped almost as if they were gearing up for a military campaign. Staples included flour, potatoes, sugar, chocolate and corn. Meat, of course, came from the deer and elk the hunters killed. It also was traded in farms and towns for bread, vegetables and whatever other food items were available.

Among the equipment carried by the typical four-hunter party were six empty barrels for meat, a large iron pot, a kettle, four axes, one broad axe, a chalk line, a canoe howel for bailing, a

drawing knife, two augers for making salt licks, six tomahawks, and three to four pounds each of black powder and lead. Personal gear included a rifle and musket for each man, two knives, a quart cup, four shirts, two blankets and—somewhat surprising for a time when personal cleanliness left a lot to be desired—an ample stock of soap.

Gear was transported by either pack horse or canoe. Some of the canoes Tome used were capable of holding up to three tons, and, contrary to what the movies show, in Pennsylvania they were usually dugouts because birch trees were few and far between here.

The country in which Tome hunted, too, was far different than the second- and third-growth forests found in northern Pennsylvania today. He tells of pine and cherry trees "from two to three feet in diameter, straight, and nearly sixty feet to the first branch," herds of 40 and more elk passing along Young Womans, Kettle and Pine creeks, and dark groves of hemlock that went on for miles.

Despite the fact he was hunting to survive and ready to use any method to take a deer, elk or bear, Tome showed a great respect for his quarry. "I never wantonly killed a deer when I could gain nothing by its destruction," he writes. "With the true hunter it is not the destruction of life which affords the pleasure of the chase; it is the excitement attendant upon the very uncertainty of it which induces men even to leave luxurious homes and expose themselves to the hardships and perils of the wilderness. Even when, after the first thrill of triumph, look without a pang of remorse, upon the form which was so beautifully adapted to its situation, and which his hand has reduced to a mere lump of flesh."

Philip Tome died on April 30, 1855. The site of his home, like the village of Kinzua near which it once stood, is now under the waters of the Allegheny Reservoir. His grave lies near that of his friend, Chief Cornplanter, in the Riverview-Corydon Cemetery on a hill above the reservoir.



THE MINK TRACKS led toward the pond, and Jesse eagerly followed them across the ice to the beaver's lodge. He saw how the mink had explored the lodge's exterior, apparently looking for mice. Muskrats, too, lived on the pond, and the mink had entered one of their houses and killed the occupants.

The Mink and the Grouse

By Bill Wasserman

WCO, Wyoming County

WHEN JESSE STEPPED into the brisk morning air an utter stillness enveloped him. He felt as if he was the only human on earth, so serene and soundless was the expanse of wilderness before him. The air was bitterly cold, and it held him within its grip as if he had been submerged in some icy river.

Although only 17, Jesse was already an accomplished woodsman. Years of experience gained while accompanying his father on hunting trips had honed his tracking skills and, more importantly, had instilled in him a deep appreciation for nature.

Grouse season was open and it had snowed the night before, and school was out for the weekend, so Jesse could spend the entire day roaming the fields and forests. He walked into the pre-dawn wilderness, shotgun in hand.

Jesse noticed everything as he walked toward the forest. An owl passed overhead on deadly silent wings. Jesse watched as its long graceful strokes carried it in search of prey, and he stood in awe as the huge bird seemed to melt into the trees at the forest edge.

Gradually the first streaks of dawn began to appear. Jesse loved the fresh



snow; it was good for tracking. He often spent an entire day just following fresh animal tracks through the overlay of white powder.

It wasn't long before Jesse stumbled upon mink sign. The tracks were in the usual twin-print pattern a mink makes; its hind feet often land on the front track as it leaps along in search of a meal. As Jesse followed the trail he was amazed to see where the mink had disappeared under the snow and had tunneled along a passageway for several yards, searching the forest floor for mice.

Diving For Food

Eventually the tracks led to a frozen stream, and he saw where the mink had dived through a hole in the ice, entering the water to forage. It was successful, too, as on the ice were the remains of a frog it had killed and eaten. Jesse knew that frogs hibernated under the mud of stream bottoms, and that the mink would often go there during its hunts.

The mink's trail then led toward a nearby beaver pond, and Jesse noticed how the mink had stopped to investigate each old stump or fallen tree in its path. The mink came to a stone fence made many years ago and followed it for several yards, exploring every hole and crevice.

Suddenly, mink tracks were everywhere. They had become a puzzling maze-like pattern in the snow, and Jesse looked closely to find out what happened. Soon he discovered the tiny

prints of a shrew. Most of the prints had been obscured by the larger tracks of the mink, but there were enough to tell the story. After encountering the shrew, the mink attacked. The shrew didn't give up easily and almost escaped under a rock, but it was captured and drug beneath an overhanging shelf in the fence.

The shrew, in winter, burrows under snow in a constant search for food. Because of its exceptionally high metabolic rate, the shrew has to eat as much as three times its own body weight every day. Jesse's father had told him that food passes through a shrew's digestive tract within a few hours, and death by starvation can occur within two or three days. Because of that, shrews are continuously searching for a meal, which makes them a common prey for many predators.

Once again the mink's tracks traveled from the stone shelf toward the beaver pond. The beavers' dome-shape house of sticks and logs, plastered together with mud, stood at the center of the frozen pond. Beavers had lived here as long as Jesse could remember, and he wondered what it was like to live in darkness under the snow-covered ice. He knew the beavers had gathered a feed-bed of small logs, branches and twigs at the base of their lodge in autumn, which served as a food cache in winter. This would ensure survival when the beavers were locked under the ice for long periods. Jesse was also familiar with their dam of branches, logs and rocks that transformed the tiny stream into a large pond.

The sun, combined with the body heat of the beavers inside, melted most of the snow from the solitary house. Conspicuous, it stood out like a bleak monument upon the frozen, snow-covered pond, and it drew the curious mink like a magnet. Jesse followed eagerly and noticed that the mink had crawled all over the beaver lodge. He figured the mink had been hunting for mice.

Jesse wondered how many beaver were living inside the lodge. He

WITHOUT WARNING, the grouse exploded from behind a stump and rocketed through the trees. By the time Jesse realized it had flushed, the grouse had already disappeared into the forest.

guessed there were probably two adults and four young, called kits. The kits would have been born the previous spring, and they would stay with their parents for almost two years until the adults drove them away to make room for a new litter. He always thought beavers were special because they are the only animals, besides man, that can change their environment to suit their needs.

Abruptly, the tracks led from the house directly to the edge of the pond. There the mink investigated another dome-shape lodge. This one was much smaller but appeared very similar. Muskrats had built the house from cattails and leaves, and Jesse saw where the mink had crawled on the house and torn a hole into the muskrats' living chamber.

Jesse had seen this before, and he knew that the mink had probably killed the muskrats and would live inside the lodge for short periods of time—mink don't den up until rearing young in the spring. Like the shrew, the mink is a constant hunter.

Jesse was happy to learn that muskrats were living in the beaver pond again. They had disappeared for a few years, and he looked forward to the valuable furbearers reestablishing themselves. Because muskrats have a high reproductive rate, with females producing up to four litters of six to eight kits per litter each season, Jesse felt confident they would survive. He wasn't concerned about the mink's effect on the overall muskrat population; muskrats often outweigh mink and fiercely fight them.

The rasping croak of a raven snapped Jesse from his reverie, and he found himself straining to hear every note of the bird's unmistakable call. He loved



to hear the sounds because, to him, they captured the essence of a pristine wilderness.

Suddenly, Jesse realized it had begun to snow again. He couldn't see the flakes at first, but he heard them pelt-ing the fallen leaves on the forest floor. Soon the snow fell harder, and Jesse became entranced by the veil of white surrounding him. For a moment he became as much a part of the wilderness as the stark and somber trees around him.

Without warning, a ruffed grouse exploded from behind an ancient hemlock stump. With wings beating frantically, the grouse rocketed through the trees. By the time Jesse realized the bird had flushed, it had already vanished. The sudden appearance of this red-brown phantom of the woodlands brought on mixed feelings. Why was it that he ached to possess the bird, but at the same time delighted to behold its escape?

Like the mink that had eluded his traps all season, the grouse had escaped his gun. But he didn't consider it a loss. Jesse knew that the mink and the grouse were there, somewhere in the forest, and he was content.



WHEN JIMMY GOT THERE, the old man was waving his arms and jumping up and down — acting like a kid. “Didn’t you see that deer?” he asked. “He had to come right by you.” No, Jimmy said he’d been asleep until the old man’s shot had woke him.

DEAR SIR:

I would like to relate to you a true story which I personally verified with Pat, Jimmy’s mother. I would title the story . . .

“Plenty of Time”

Like any other teenager, Jimmy was eagerly looking forward to the first day of last year’s buck season. He made all his necessary preparations to be ready for that ultimate moment when he would bring down his very own trophy.

Jimmy was hunting upstate. His mother isn’t sure, but thinks it was in Lycoming County.

On his way up the mountain to find “the perfect spot,” Jimmy met an elderly gentleman along the way. Jimmy guessed his age to be in the 60s. But what does youth know of age? I can remember thinking people who were in their 40s were old! How wrong I was.

The senior citizen and the young lad struck up a conversation, with the elder doing most of the talking. The old hunter looked at Jimmy and said, “I was just about your age when I shot my last deer, and I’ve been unsuccessful since. Not much time left. Maybe I’ll be lucky today.” A few more words were exchanged, they wished each other luck, and went their separate ways.

Jimmy went up the mountain, the old man slowly moved to a less strenuous spot, on a more level plane.

Jimmy settled in to await his buck. His eyes strained, his ears tuned to every minute sound. Suddenly, as if out of no-

The deer stopped, broadside to Jimmy. At that particular moment, thousands of thoughts raced through his mind. Wouldn't the guys at school be jealous! How many points? Points, 8. Clearly a trophy. Wow—won't Mom and Dad be proud?

At that instant, which should have been a once in a lifetime moment, Jimmy pulled up. The words of the old man came back to him, and the look of yearning in those old eyes to make one more time a success. Jimmy thought: I've got plenty of time. The old man may not have many years left.

So Jimmy let this trophy walk on by, heading downhill, in the direction of the old man. His thoughts now were a mixture of sorrow (maybe because he didn't shoot), and of pride, (that he could sacrifice his own wants for those of another).

A short time later he heard a shot ring out from the direction of the old man. Again his heart pounded as he waited a short time and then headed in that direction. Maybe he could be of some help.

When he got to the old man he was waving his arms, and jumping up and down like a kid of Jimmy's age. After things settled down, the old man said, "Boy, didn't you see that deer? He had to come right by you."

Jimmy replied, "No, sir, I fell asleep. Your shot woke me up."

Jimmy walked into that mountain as a young boy. He walked away from it as a young man, feeling good inside, that he had helped to make someone else's dream come true.

But that's not the end of Jimmy's hunt. Later that morning he came across some other hunters, again older gents who had just made a kill. They had to take it up to the top of the mountain and down the other side to get to their vehicle. Jimmy volunteered to help drag the deer. Remember, this is a teenager who has seen two deer taken, neither of them his own, and is willing to join in with the work. When they reached the top, one of the gentlemen stuffed a paper bill in Jimmy's pocket. Jimmy took it out and looked at it. It was a \$100 bill! Jimmy looked at the

Immature Bald Eagle



\$4,000 REWARD

for information

leading to the CONVICTION of individuals who MOLEST,
INJURE, or KILL BALD or GOLDEN EAGLES.

Report violations to your LOCAL GAME PROTECTOR.

THE UNIVERSITY OF CHICAGO PRESS

18. State and Wildlife Service = Pennsylvania Game Commission = Pennsylvania Chapter of the Audubon Society = National Wildlife Federation = Pennsylvania Wildlife Federation = Pennsylvania Department of State = U.S. Fish & Wildlife Service = Pennsylvania Forestry Association = Mount Lebanon Sanctuary Association

man, handed the money back and said, "I don't need this. See ya," and went on his way.

There are not adequate words to describe actions such as Jimmy's. In today's world we hear so many things about teenagers—most of them not good—that it is truly refreshing to hear things like this. Jimmy's mom and dad are proud of him. And we as a society, should also be proud of Jimmy. It just goes to show, there are good kids today. We salute you, Jimmy, and may you carry all the good will you possess now into your future life—in hunting and in life itself.

P.S. I'm sure you hear many, many stories such as this, and if you don't print it, that's okay. I've been a hunter for better than 25 years. I can appreciate Jimmy's love of nature and the outdoors. I've also been a subscriber to GAME NEWS for more than 25 years, so I guess I'm in that category of "older/senior citizens" too. I would be proud to have Jimmy as a hunting partner. Jimmy's mom and dad are Sonny and Pat Brungart, and they live at R.D. 1, Fredericksburg, PA. Thank you for taking the time to read this, and I sincerely hope it fits your high standards to be put in GAME NEWS.

Respectfully submitted,

Rodney E. Curry
Fredericksburg, PA

BIRDS & BUCKS OF 1990



DENNIE ROLAND and his son **Brian**, Altoona, had a banner opening day in archery season. Dennie killed a 4-pointer, and his 14-year-old son took a handsome 8-point.

VINCE ESSIG, Keokuk, proudly poses with his gobler that weighed 19 lbs and sported a 10½-inch head and 1-inch spurs.

PUNXSUTAWNEY'S CHRISTOPHER MILLER, 13, killed this 18¼-inch spread 8-pointer 200 yards from his house on opening day of gun season. **Bob Sofranko** and son **Carl**, Mansfield, OH, killed these two turkeys near their Tidioute camp. Bob's bird was a 15-pound hen; Carl, on his first turkey hunt, took a 10-pound jake.



BOWHUNTER CLENDON THOMAS, Harrisburg, dropped a 187-pound 10-pointer on the second week of archery season in Dauphin County. **Hillsgrove's Corey Richmond**, bagged this trophy gobbler, weighing nearly 21 pounds, in Sullivan County.





STEVE METZGER, Germansville, killed this 11-point typical on the last day of archery season in Lehigh County. The buck scored $152\frac{1}{8}$ and dressed out at 170 pounds.



ALLEGHENY COUNTY gave up this fine 13-pointer to Gary Chiurazzi, Pittsburgh, during archery season. The big buck dressed out at nearly 200 pounds.

MIKE AND JOE HORVATH, Edwardsville, scored on a pair of nice bucks on opening day of firearms season. The kills took place within 15 minutes of one another. The brothers pose with their hunting vehicle—a 1928 Ford.



ON HER FIRST-EVER deer hunt, Marie Golden, Plainsboro, collected this big 9-point on opening day in Susquehanna County. Dennis Adam, Auburn, killed his first turkey, an 18-pound gobbler with $10\frac{3}{8}$ -inch beard, in Lycoming County.



FIELD NOTES

Good Thinking

PHILADELPHIA COUNTY—The Game and Wildlife Code requires hunters 12 through 15 years of age to be accompanied by an adult 18 years of age or older; for hunters ages 12 and 13 the accompanying hunter must be a parent or guardian. At a hunter-ed class, I asked the students why this made sense. One youngster replied that if the young person got a deer, the adult would be there to help drag it out of the woods.—WCO Richard J. Shire, Philadelphia.



Bigfoot Sighting?

BRADFORD COUNTY—During my career I've received reports of many strange creatures—from panthers to monkeys. But the strangest one came from fellow officer Rick Larnerd. He and his deputy were on jacklight patrol when they saw an animal described as eight feet tall, black and walking on its hind legs. They watched it walk 200 yards across an open field, but when they put the light on it the creature fled. Bigfoot? Sasquatch? It's anyone's guess, but I'm sure there's no truth to the rumor that the officers left the area in such a hurry that they spilled their coffee.—WCO William A. Bower, Troy.

Identity Crisis

BEDFORD COUNTY—When a WCO moves to a rural area, people get to know him and recognize him and his family quickly. Family members, though, soon lose their identities and become “the game warden’s wife” or “the game warden’s son/daughter.” My wife got a job at a small convenience store that is a center of activity for the community, and people often leave messages there for me. Folks around here still refer to my wife as “the game warden’s wife,” but I am no longer “the game warden.” I am now “the convenience store lady’s husband.”—WCO R. Jim Trombetta, New Enterprise.

Useful Gift

ADAMS COUNTY—I had to serve an arrest warrant on a violator who hadn't paid his full fine in the time allotted by the magistrate. In such situations I usually call the defendant and suggest that he quickly pay the fine. This fellow explained that he'd just gotten married, and that he would use wedding money to pay the balance of the fine. The man didn't pay the fine right away, though, but just as I was getting the warrant out again, I checked and found the fine had eventually been paid. I guess the marriage took after all.—WCO L.D. Haynes, Gettysburg.

Get Out There

ELK COUNTY—Hunters who didn't find deer last season and want to improve their chances for the next one should be doing their scouting now. Winter is one of the best and easiest times to learn feeding and bedding areas because there's usually snow on the ground. Scouting is also a great cure for cabin fever.—WCO Richard S. Bodenhorn, Ridgway.

Police Those Ranks

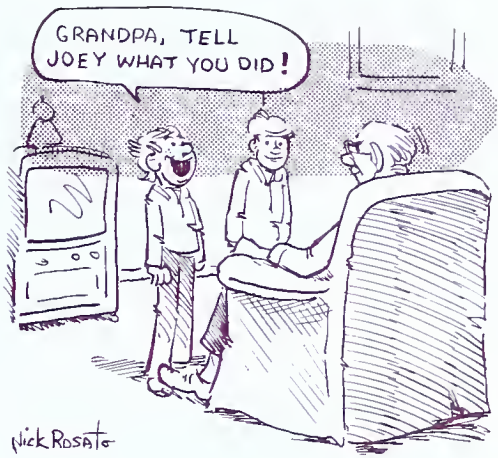
LUZERNE COUNTY—A farmer in my district last year signed a safety zone agreement to open his land to public hunting, and I patrolled his property the first week of general small game season. Within a half-hour, I witnessed three safety zone violations, and I even observed one of the violators stealing cabbage. This kind of activity closes land to public hunting and gives sportsmen a bad image. The only bright spot to these incidents is that another hunter volunteered to testify about the violations.—WCO Edward J. Zindell, Wilkes-Barre.

Difficult Choice

INDIANA COUNTY—I recently presented a program on furbearers to a group of elementary and preschool students at Blairsville Library, where Susan Bowers organizes after-school programs on a variety of topics. I took a collection of furs for them to see and, more importantly, touch. I was impressed at how many furs the kids identified, and I quickly realized the challenge of teaching young children. It's not always easy to choose words they can understand. I think the most important lesson for them was deciding which one is softer, the raccoon or the skunk.—WCO M.A. Schake, Homer City.

Stupid Wager

MONTOUR COUNTY—On an evening patrol my deputy and I came upon a car parked on a back road. While talking to the occupants we heard noises in a row of trees near the road. We investigated and found a young man had climbed a limbless cherry tree for 25 feet. When he shinnied back down we asked why he'd climbed the tree. "They bet me a pack of cigarettes I couldn't climb it," he replied. I guess there's no limit to what some people will do to kill themselves.—WCO Peter F. Aiken, Watsontown.



When I Was A Kid . . .

ADAMS COUNTY—While duck hunting on a bluebird day last fall, my son and I were solving the world's problems while watching an empty sky when two shots rang out close to us. We investigated and found a 13-year-old boy had shot at our decoys that were "swimming" on the breezy pond. It's certainly no laughing matter that the youth was hunting without proper adult supervision. But we have to chuckle when we think of this young fellow telling the story years later of how, on his first duck hunt, he shot the game warden's decoys.—WCO Steven M. Spangler, East Berlin.

Quickest Route

CENTRE COUNTY—WCOs are asked a lot of wildlife questions, and recently I heard a new query. How do woolly bear caterpillars know to cross a road at a 90 degree angle? Think about it; have you ever seen one do it any other way?—WCO George F. Mock, Coburn.

Tough Dinner

ERIE COUNTY—Leaving the house one day I spotted a great blue heron struggling with a huge water snake. The heron started at the snake's head, picked it up and vigorously shook it, and eventually worked its way back to the tail. I'll bet the bird got a sore neck from eating that meal.—WCO Wayne Lugaila, Waterford.

Small Game Abundance

Eleven years ago, the Southeast Region took responsibility for the Blue Marsh area. We set out to make the area suitable for small game. There has been a substantial increase in rabbit populations, and we're happy to report the sightings last summer of 50 hen pheasants with more than 350 chicks. — LMO Stephen L. Opet, Tamaqua.



And Then . . .

CLINTON COUNTY—New methods of controlling nuisance animals are always welcome. When a feral rooster wandered into my neighborhood it decided to take up residence in a spruce near my house. Every morning about four o'clock it began crowing, and after a week of little sleep I was getting desperate. Then I got a call from a Westport resident who'd caught a bobcat in his box trap. Seems the cat had been killing his chickens . . . — WCO John Wasserman, Renovo.

No Cigar

BLAIR COUNTY—Over the years I've extracted many confessions to game violations in different settings. But probably the most unusual one occurred when the leads in an illegal deer kill led to a hospital delivery room where the suspect's wife was in labor. The man agreed to talk about the incident, and when presented with certain evidence he confessed. — WCO Steve Kleiner, Altoona.

Works for Dirtholes, Too

One of the hunter-ed instructors took her 6-year-old son along with her to class. He seemed interested in the section on trapping, but she didn't think he would understand or retain much information. A week later the boy asked if her perfume lasted all day, and when she replied that the smell would fade, he said: "I get it. It's just like scent on a trap. It goes away after awhile." I guess this shows how informative our courses are to all ages. — IES Barry K. Moore, Saltsburg.

Well-Earned Bonus

LANCASTER COUNTY—The Conewago Rod and Gun Club, Elizabethtown, provides a bonus to students who pass its hunter-trapper education classes. Along with their hunter-ed certificates, students are also presented with club membership cards that are good for the rest of the calendar year. The club believed it was important to provide a safe and supervised location where the recent graduates could practice their newly acquired skills. — WCO Dennis L. Neideigh, Salunga.

It's Their Job

ELK COUNTY—Beavers are hard at work and causing a great many complaints. Basements and driveways are filling, and plugged sewers and ditches are flooding roads. The beavers' greatest accomplishment, though, seems to be the new lake they made between St. Marys and Ridgway — using the railroad banks for breastworks. — WCO H.D. Harshbarger, Kersey.

Save Bucks on Geese

BUTLER COUNTY—WCO Dave Donachy and I were patrolling Pymatuning on the first day of goose season when we came across four sportsmen hunting fairly close together in a field. All were from McKees Rocks, but surprisingly none of them knew each other. If they had, they could have saved themselves some gas money. — WCO D.E. Hockenberry, East Butler.



Is Not! Is Too!

WYOMING COUNTY—County Commissioner Ronald Burr told me about two boys he knew who were sent to the principal's office for fighting. The scuffle began during an argument over what day pheasant season opened. One boy said his father told him it started on Saturday. The other boy claimed opening day was on Thursday because his father had said pheasant season always starts the day the Commission releases the birds. —WCO William Wasserman, Tunkhannock.

Not A Good Sign

BRADFORD COUNTY—A person can tell how well liked he is by how long it takes someone to offer assistance when keys have been locked in a state vehicle. I can't decide whether two dozen folks passing by without helping is a good indicator or not, but the individual who did finally help thought the incident might make a good "Field Note." —WCO Richard P. Larned, Warren Center.

Best of Luck

CHESTER COUNTY—I'd like to wish the upcoming trainee class at the Ross Leffler School of Conservation the very best of luck. The only group more excited about the assignment of the 21st class is the 20th class. You see, when the new class graduates, the members of the 20th class automatically become "veterans," complete with three years of "war stories" to pass along to the new folks. —WCO William C. Ragosta, Nottingham.

Helping Out

Autumn olive is usually one of the most reliable food-producing plants. Last year, however, there were large areas in the Southwest Region where the plant didn't produce fruit—probably due to a late frost or rain during the flowering season. But the dogwoods seem to have made up for it; there was a very heavy crop of berries last fall. —LMO R.B. Belding, Waynesburg.

Wildlife Recovery

LYCOMING COUNTY—I recently received a call about a bobcat that had been struck by a vehicle. When I got to the feisty seven-pound youngster, I tranquilized it with a blowgun and took it to a wildlife rehabilitator in my district. The cat, which had two broken legs, is recovering, and if all goes well it will be fitted with a radio transmitter and released. —WCO Dan Marks, Montoursville.



Well, It Was Dark

UNION COUNTY—Deputy Bob Troutman received a report of a dead bear, which the informant said had been shot in the head and was lying in a field at the end of Paddy Mountain. When Bob arrived on the scene, he saw what appeared to be a bear. Upon closer examination, however, the "bear" turned out to be an old, darkened bale of hay. How the head-shot report came about we'll never know. —WCO Bernard J. Schmader, Millmont.

Outstanding Program

MERCER COUNTY—Every year the Lakeview Middle School offers an outstanding hunter-trapper education course as an extracurricular activity. It's taught one class period per week, for three nine-week terms (November through May). The class is conducted by school teachers Bruce Mellring, Bruce Patterson and James Wilson (who are hunter-ed instructors, too). Jerry Leydic, from the PA Trappers Association, helps with the furtaking section, and, as a bonus last year, Helen Winger taught first aid and CPR. This year's program promises to be even better because of the addition of a walk-through field trail. I feel all those involved with arranging and supporting this program should be commended. —WCO Donald G. Chaybin, Greenville.



Bee Careful

BERKS COUNTY—It's interesting to watch deputies unlock state game land gates. The older, well-seasoned deputies eye the lock boxes suspiciously and poke them with sticks before inserting the keys. Less experienced officers enthusiastically flip open the lids. A WCO can benefit from such observations, by learning which method he should use when he has to unlock the gates himself. So, tell me, how a 15-year veteran WCO could fail to suspiciously eye or poke a box that wasps had chosen for their home. I'll know better next time. —WCO Alan C. Scott, Cressona.

Play It Safe

A recent incident pointed up the effectiveness of using fluorescent orange tree bands to cut down the risk of being shot in mistake for game. An avid Schuylkill County coyote hunter was using one of these bands while hunting, fully camouflaged, on a windy day. Three hunters closed in on him, the sound of their movements masked by the wind. The first indication the hunter had that they were there was when he heard: "Hey, Tim, there's a hunter in here. Look at the orange on that tree." Play it safe; use fluorescent orange at all times. —IES Michael W. Schmit, Fleetwood.

Getting the Point

WESTMORELAND COUNTY—Deputy Ed Farzati was working the first day of dove season when he answered a safety zone complaint call. The complainant, himself a hunter, said several individuals were shooting doves inside the safety zone, and shotgun pellets were striking his house and swimming pool. The man was concerned that his children might be struck, and he asked Ed if he had ever been hit by a pellet. Just then the landowner's 3-year-old son threw a rubber ball that struck Ed squarely on the jaw. I think Ed got the full impact of that statement. —WCO Joseph V. Stefko, Greensburg.

Workshop Observations

I was privileged to attend last year's Southeast U.S. Fish and Wildlife Service Hunter Education Workshop in Virginia. It was interesting to find that other states experience problems identical to ours: upgrading hunter image, introducing conservation education into public schools, apprehending game law violators, and dealing with anti-hunting and anti-gun sentiments. As big as those problems are, I'm convinced that with cooperation from sportsmen we can continue to portray hunting as the fine recreational past-time it is. —IES Richard W. Anderson, Nazareth.

1989 Game-Take Survey

By Robert C. Boyd

PGC Biometrician

AN IMPORTANT function of the Game Commission's Bureau of Wildlife Management is to monitor game harvests and the number of hunters hunting each species. The game-take survey, an annual mail survey of resident and nonresident hunters, provides harvest figures and estimates of the number of hunters for 17 species of small game, waterfowl and furbearers. In general, changes in harvest levels may be indicative of changes in small game population levels which, in turn, may stimulate research into factors that may influence game populations.

In March 1990, 22,100 hunters—approximately 2 percent of the 1989–90 licensed hunters in Pennsylvania—were randomly selected to receive a

harvest survey questionnaire. After an initial mailing and two follow-up mailings, 15,955 hunters (72 percent) had responded. A comparison of results between the 1989 and 1988 surveys is found in Table 1. Trends observed over the past seven years in species harvests and hunter participation are shown in Table 2.

Harvests

Highest estimated harvests for 1989 were recorded for squirrels, rabbits and dove, (2,206,719, 1,696,712 and 1,209,438, respectively). Harvests for most species in 1989 did not differ substantially from those recorded in 1988. Harvests, however, increased substantially for spring turkey and geese, and decreased for rabbits, grouse, squirrels,

**Table 1. Comparison of Harvests and Numbers of Hunters
Between 1988 and 1989**

Species	Harvest			Number of Hunters		
	1988	1989	% Change	1988	1989	% Change
Spring Turkey	14,659	17,154	17.0	226,008	224,691	-0.6
Fall Turkey	22,515	21,669	-3.8	300,055	296,139	-1.3
Rabbits	1,930,737	1,696,712	-12.1	528,615	497,463	-5.9
Grouse	523,271	410,371	-21.6	390,192	365,211	-6.4
Squirrels	2,313,153	2,206,719	-4.6	472,841	464,434	-1.8
Pheasants	406,796	373,059	-8.3	429,097	401,651	-6.4
Woodcock	165,590	143,502	-13.3	93,110	87,053	-6.5
Quail	20,568	18,592	-9.6	21,641	21,366	-1.3
Dove	1,520,322	1,209,438	-20.4	143,981	131,321	-8.8
Geese	49,573	78,821	59.0	53,475	43,603	-18.5
Ducks	131,399	119,952	-8.7	51,525	41,168	-20.1
Snowshoe Hare	8,488	7,595	-10.5	21,873	17,568	-19.7
Raccoon	247,743	155,761	-37.1	26,421	17,249	-34.7
Muskrat	230,058	141,577	-38.5	No Est.	No Est.	No Est.
Red Fox	52,778	43,525	-17.5	No Est.	No Est.	No Est.
Gray Fox	23,102	28,818	24.7	No Est.	No Est.	No Est.
Opossum	105,881	80,660	-23.8	No Est.	No Est.	No Est.
Skunk	16,371	20,409	24.7	No Est.	No Est.	No Est.
Mink	12,914	9,669	-25.1	No Est.	No Est.	No Est.

Table 2. Seven-year Trends in Harvest and Number of Hunters, by Species

Species	Average Change per Year, 1983-89	
	Harvest	Hunters
Spring Turkey	+ 1,045	- 2,485
Fall Turkey	+ 964	- 9,801
Rabbits	- 63,210	- 36,572
Grouse	- 6,526	- 15,225
Squirrels	- 3,864	- 21,846
Pheasants	- 44,765	- 38,812
Woodcock	- 3,569	- 8,711
Quail	- 1,212	- 2,326
Dove	- 45,531	- 7,976
Geese	+ 500	- 4,180
Ducks	- 20,480	- 6,453
Snowshoe Hare	- 756	- 1,795
Raccoon	- 53,214	- 7,663
Muskrat	- 74,981	No Est.
Red Fox	- 6,227	No Est.
Gray Fox	- 6,396	No Est.
Opossum	- 45,111	No Est.
Skunk	- 11,416	No Est.
Mink	- 968	No Est.

pheasant, dove, raccoon and muskrat.

Hunting for rabbits, squirrels and pheasants appears to be most popular for Pennsylvania small game hunters, as there are between 400,000 and 500,000 hunters for each of these species (Table 1). The number of hunters for fall turkey and grouse range between 300,000 and 400,000, while the number of spring turkey hunters is in the 200,000 to 300,000 range. Compare those numbers to the estimated 1,022,812 deer hunters for 1989 and

one gets a feel for the tremendous popularity of deer hunting here.

In 1989, Pennsylvania hunting license sales decreased by 8115 licenses, less than one percent, yet the number of hunters for each of eight species (rabbits, grouse, squirrels, pheasant, dove, geese, ducks and raccoon) decreased by more than 8400 hunters. More than 24,000 hunters dropped out of the rabbit, grouse and pheasant hunting scenes. The number of waterfowl and snowshoe hare hunters decreased by more than 18 percent, while the number of raccoon hunters decreased by 35 percent.

For the seven-year period from 1983 to 1989 there has been a significant increase in spring turkey harvests, and decreases in rabbit, pheasant, duck and most furbearer harvests (Table 2).

Increasing spring turkey harvests are probably indicative of growing turkey populations, whereas the declining harvests for the other species are in part due to significantly decreasing numbers of hunters for those species (Table 2).

During March 1991 a new sample of hunters will be selected for the 1990 Game-Take Survey. If you receive the questionnaire (hunters' chances are about 1 in 50), please take the time to fill it out and return it. Information on the species you hunted, and your success, are important for the continued wise management of Pennsylvania's wildlife resources.

Woodworking for Wildlife Homes for Birds and Mammals

The Pennsylvania Wild Resource Conservation Fund (income tax checkoff fund) and the Game Commission have produced a 60-page booklet full of detailed plans and related information for people interested in building and erecting wildlife nesting devices. From bluebirds, screech owls and ospreys to raccoons, squirrels and even turtles, easy to follow directions for building 22 proven homes and other devices for wildlife are provided. Order *Woodworking for Wildlife* from the Game Commission, Department AR, 2001 Elnerton Avenue, Harrisburg, PA 17110-9797. Price is \$3 each, delivered.



EVERYBODY'S GOT A THEORY on the best way to kill a buck. The proliferation of knowledge dredged up by experts over the years, expounded by outdoor periodicals and videos, has added to the hunter's storehouse of information. While many "facts" about deer won't necessarily increase a sportsman's chances of being successful, they certainly add to lively hunting discussions.

Random Thoughts

EVERY DEER HUNTER has a theory. With a million-plus Pennsylvania nimrods, that's a lot of creative thinking being aired at camps across the state the evening before opening day. In those final pre-season hours, when all good gunners should be asleep but the conversation lingers around the coffee pot, the science and the philosophy of the hunt distill to pure theory. Every hunter takes fact and speculation and builds his own theory for hanging antlers on the pole in the morning.

Nowadays, deer hunters have lots of research to draw from in formulating their hypotheses for success. Hunting magazines are so full of scientific information on the biology, physiology and psychology of deer, they're starting to read like scientific journals. They even include such esoteric statistics as the number of hairs per square inch on a deer's hide, useless for planning a hunt,

but a staple of knowledge to the real deer nut.

Through the work of researchers, popularized in the press, more is known about deer by the average hunter than ever before. This means that armed with extra knowledge, the current generation of sportsmen can concoct more hunting theories than any before. Whether or not they are any better at putting venison in the freezer is still open to question, but there's

Another View...

by Linda Steiner



always the additional fun of thinking them up.

Since hunters are by definition independent, do-it-yourself sorts, they accept or disregard what the experts have to say about deer, depending on their own experiences. They read that research says whitetails will do this for that reason, but they saw a deer do something else, and they believe this is why. As there are hardly two experts who agree exactly on why deer do what they do, why should hunters, without the scientific credentials, have to come to an accord? All the diverse theories about deer and deer hunting make the preseason camp conversation invigorating. It's not quite a debate between a bunch of Einsteins and Nietzsches, but it has at least some of the scientific and philosophic trappings.

One ear to the pillow, I listened last year to the hunter-theorists in the other room discussing their interpretation of whitetail behavior and how they were going to make it work for them the next day. Years ago, the chat would only have been about who was going to post at which stand in the hope that a buck would bolt by. Now I heard topics ranging from how deer use scrapes and rubs

to communicate, to the importance of scents and scent control, to whether deer see colors, which colors, and what they do about it.

Stand location and hunting tactic for the next morning depended on the hunters' interpretation of the bucks' biological and psychological tendencies, and on individual hunters' theories of how to intercept them. In the end, sounding like existential philosophers, the last ones awake agreed that a deer is going to do what a deer is going to do, and they finally turned off the lights and went to bed.

In the science of quantum mechanics, investigators try to determine the probabilities of certain subatomic events occurring. Hunters have a quest that would make even these physicists cringe: they try to determine what an individual entity, in this case a deer, not a simple electron, will do. Scientific inquiry can handle the tendencies, take a sample and calculate what should happen most of the time. But a hunter needs specific predictions to fill his tag, such as exactly where a buck is going to be at 7 a.m., and in which direction it will run, so he'll know whether to post along the hillside or head for the swamp.

The science part of hunting, the hard information we get from our experiences afield and elsewhere, can take us just so far. When we try to predict tomorrow and influence it, as all hunters must do, we enter into another realm, if not quite of the soothsayer, at least of the philosopher. The enigma the deer hunter ponders, how and where to find a buck, is not quite on the order of seeking the Meaning of Life, but on the night before opening day, it's certainly more germane.

In any case, what keeps us awake through those hours before the alarm seems as cogent a question. We toss and turn as what we know about deer tumbles and twists in our minds. With the bucks still rutting, should we post around the scrapes? Will they be feeding in the acorns and should we sneak up the ridge tomorrow? Or with the



storm tonight, will they be couched in the thicket, or bedded in the grass field and never minding it? Or maybe the best bet will be the edge of the crab-apples, along the line of rubs. But we can only be in one place at a time science says, at least in this reality, philosophy qualifies.

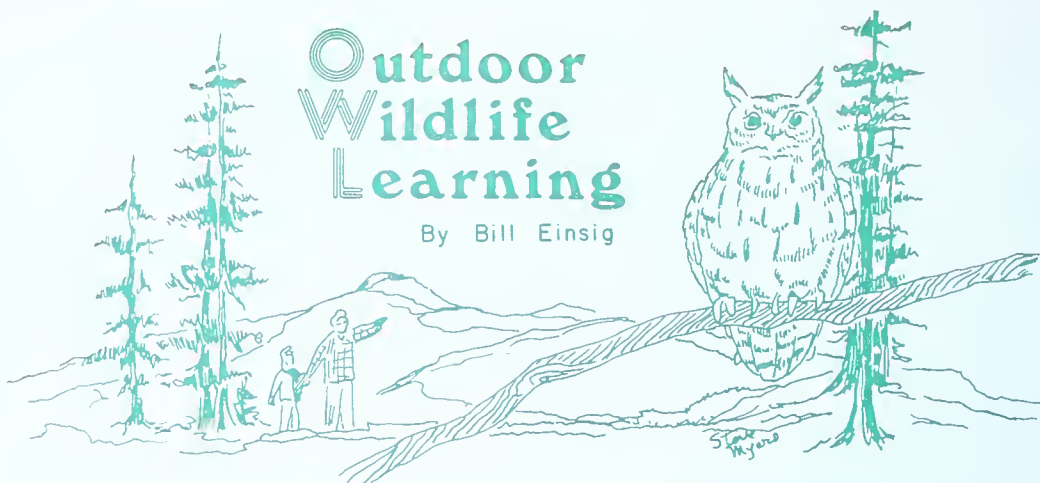
All true scientists are supposed to reject a theory that does not fit substantiated data, not ignore data that doesn't fit the theory. Deer hunters make no claim to being scientists, and cherished theories, even when disproven, are tough to scrap. The plan for opening day sounded so great, the bucks should have run right up the draw to us, that we can't believe it when it doesn't work. Not even when it doesn't work the second year, or the third. Maybe there's a trick of the air currents in the hollow that turns the deer, or an unseen gunner cuts them off, but that's just another theory.

Some hunters blow with every vagary of the wind of deer hunting hypothesis. These either become extremely successful or provide fodder for the yearly camp joke, as in, "Let's see what he's got cooked up for this season, har, har." Maybe it's crouching in a blind in the

WHATEVER YOUR THEORY, and regardless of whether you're successful, deer hunting is one of our most exciting and demanding outdoor challenges. Of course, developing a theory that pans out—even just for one season—makes the hunt all the more rewarding. And it makes for a good story, too.

middle of a cornfield, still hunting with the sun at his back so it will hit the deer in the eyes, or dousing himself with apple scent. Even the stranger ideas may work, or appear to work, at least once. This is not a confirmation of any scientific supposition, but more the philosophic idea of the absurdity of existence, or at least its down-home equivalent, "Now don't that beat all?"

Among scientists, there are those seeking what is called the Unified Field Theory, in which all the forces of nature can be interpreted as one. In philosophy, the aim is to attain Enlightenment, a state the Buddha found and a lot of others are still looking for. In deer hunting, the search is for the sure thing, a place and a circumstance that guarantees a trophy tag-filler year in and year out. But is this a goal we really want to reach? Wouldn't we rather have it stay a fingertip from our grasp, touching it just now and again to keep us interested? What's your theory?



Teaching Youngsters

Dear Mr. Owl,

I have a 5-year-old nephew whose parents aren't much for nature but don't mind if I do some teaching. What is a good way to introduce him to the outdoors and keep him interested? D.L., Hanover

Dear D.L.,

If I had a magic formula guaranteed to get folks interested in nature, I'd certainly share it with you. However, after nearly 25 years of teaching, and with three kids of my own, I have to admit I don't know a sure way to make them budding naturalists.

We live in an age that offers so much to capture our attention, entertain and educate us. It's not surprising even children must choose from the many options that compete for their time and interest. That's not necessarily bad, but it is certainly different than when I was a kid and spent long, lazy days exploring nearby woodlots.

Perhaps the best advice is to focus on the child you care about and not on the nature you want him or her to learn to love. That might sound strange, but I believe children should have a good time as they learn. In other words, share your time, yourself and your love of the outdoors with your nephew and he'll remember those experiences as he grows.

Take him for walks in a pasture and show your own excitement over a common monarch butterfly or the smell of honeysuckle. Startle him with the sudden pop of a ripe jewelweed pod and laugh with him over a puff of a dandelion.

If you take him fishing, be sure it's to a place with a million or more sunnies and make him think each one he catches is the best—even if you secretly hook it yourself! If the action slows down, help him catch a crayfish or turn over a few rocks to see what is hiding underneath. Young children remember strange things that you and I would overlook, while they tend to miss much that we think important.

Excitement is contagious. If yours infects him, he may soon regard the natural world as a place of fun and fascinating surprise. Explore with him and have fun.

By the way, if there's a niece in the picture, be certain she has the same opportunity to share your time and love of the outdoors.

Dear Mr. Owl,

I'm an elementary teacher and would like to do more work with my students outside but don't have much time in our schedule. Do you have some ideas that can be done in a few minutes or so? C.R., York

Dear C.R.,

It's true that most outdoor activities require significant class time. If you add an additional 10 minutes just to grab coats and hats, as well as walking time to the study area, you might find the activity just too time-consuming to fit into your daily routine.

Your idea for quick outdoor trips is a good one that deserves some careful thought. Such trips may not consist of an

entire lesson by themselves but are more likely to be used for collecting bits of information that can be used back in the classroom.

You decide which of the following 10 ideas are practical and which need a few changes to make them work for you.

Mr. Owl's Quick Outdoor Activities

1. What does dirt look like under the microscope or hand lens? Collect small samples from several areas of the school lawn and return to the classroom to explore the micro-world. Any seeds? Sand?

GAMEcooking Tips

Sausage Stuffing

My father made the best sausage in the world, and his recipe was one of our family's most closely guarded secrets. He made the best sausage stuffing in the world, too.

When I began to hunt and cook wild game, I wanted to duplicate my father's recipe. Because my father passed away a few years ago, this seemed

almost impossible. However, after many consultations with my mother, and some trial and error, the following recipe for stuffing is very close, using venison sausage. Included is a recipe for venison sausage in case you have not had the pleasure of using your deer meat this way.

Venison Sausage

Trim meat of all fat, ligaments and tissues. For a moist, flavorful sausage, use two parts ground venison to one part ground pork.

1/2 ounce sage
1/2 ounce ginger
1/4 ounce fennel seed, crushed
1/4 ounce oregano

For 10 pounds of mixed venison and pork, use:

Mix thoroughly to blend seasonings. Package and freeze.

4 ounces salt
1 ounce pepper

Note: One pound of sausage will serve four people.

Benton Meat Market Sausage Stuffing

Ingredients

1 lb. loose sausage
1 tsp. fennel, crushed
1 tsp. basil
1 tsp. paprika
1/2 tsp. garlic powder
1/2 tsp. black pepper
1/2 tsp. red pepper

Combine all ingredients and set aside to allow flavors to mix.

Meanwhile assemble:

1 cup chopped celery
1 medium onion, grated
1 large bag bread cubes
(1 loaf, cubed)
3 eggs
3 tbs. butter
1 cup hot water

Saute the sausage until cooked but not brown. Add celery and onion to pan and saute 2-3 minutes. Remove from heat and add butter. Stir until butter is melted. Add bread cubes, eggs one at a time and work mixture with hands. Add hot water slowly just to moisten. Mixture should just form a ball or hold shape. Salt to taste if desired. Adjust seasonings. Can be prepared up to this point and refrigerated.

—FROM WILD GAME COOKERY
BY CAROL VANCE WARY

Fun Games

Do You Hear What I Hear?

By Connie Mertz

Of the species below, circle the FIVE which DON'T have an excellent sense of hearing.

Bobcat	Canada Goose
Quail	Ruffed Grouse
Barn Owl	Raccoon
Gray Squirrel	Chipmunk
Skunk	Snowshoe Hare
Elk	White-Tailed Deer
Osprey	Beaver
Otter	Mink
Red-Tailed Hawk	Opossum
Gray Squirrel	Wild Turkey

Bonus: Which of these species can locate prey in complete darkness?

Answers on page 64

2. During the next rain shower, have each student dash out to the lawn with a margarine cup, wait one minute and return. Then retrieve the cups—carefully. How much rain fell in one minute? How many ounces? Milliliters? When would the cup be full? What was the average? What is its pH? Is this “acid rain”?

3. Does the bark on all trees have the same pattern? Have teams of students go to selected trees of various types to observe the bark. When they return to the room, have them communicate their observations to the rest of the class. Color? Texture? Patterns?

4. Form a straight line at arm's length

on the lawn with alternating students facing opposite directions. How many birds can each see in five minutes? How many crossed the line? In what direction were the birds flying? Would you have the same results at other seasons of the year?

5. In autumn, each student should collect one leaf with two or more colors. Back in the classroom, have students draw their leaf with close attention to the pattern of the colors. Compare drawings and look for similarities and differences.

6. On a cold January day, place one thermometer inside your nearest bluebird box and another on the outside. Wait 10 minutes and read the thermometers. Is it colder inside the box or outside? Why? Is this true on both sunny and cloudy days? Why? (What? You don't have even one bluebird box? Perhaps that could be another class project.)

7. On any day, bury the bulb of one thermometer an inch or two below soil level and lay another on the surface of the ground. Which is colder? Why?

8. Survey the plants in your school lawn with this quick method. Have all students stand in a circle facing out. Then have them, with eyes closed, take two giant steps, bend over and pull a pinch of “grass” from the lawn. Open eyes and regroup to compare and tally samples. Is it all really grass? Any clover? Dandelion? Plantain?

9. We've all done this as kids—I hope. Lie on the ground and watch the clouds. In which direction are they moving? Are they moving in the same direction as the ground level winds? What shapes do you see? Later, write a story or draw a picture based on your memory of the cloud.

10. How big is a brick? Arm the students with rulers and measure the bricks in the school itself. Are they all the same size? Same color? Where can you find a brick showing three dimensions? What is the volume of a brick?

These are just a few examples of quick outdoor tasks that reinforce basic skills and provide practice in solving problems. You can probably think of dozens more.

If you have questions for Mr. Owl, send them to this column, GAME NEWS, Pennsylvania Game Commission, 2001 Elmerston Avenue, Harrisburg, PA 17110-9797.

L EANING BACK in my desk chair, peering out through the frosted window in my office, I relax and begin to recall amusing and unusual events from the past. Mid-winter permits more free time for me to reflect on this unusual career.

Unique—and perhaps bizarre—are the many duties required of wildlife conservation officers. The luxuries of a “nine-to-five” schedule are foreign to us. Rather, duty shifts rotate around the clock, from weekdays into weekends.

From a solitary wilderness patrol to addressing an audience of several hundred; from verbally wrestling with a burly violator to imparting wildlife knowledge to a pack of Cub Scouts; from the glamour of an interview with a local television crew to the not-so-prestigious task of disposing of roadkilled deer; the duties of a wildlife conservation officer may take him anywhere at any time.

February 1—Completing reports, reviewing interagency correspondence and returning telephone calls may not be what most people envision as part of a WCO’s job, but these tasks consume a surprising amount of our time. Most officers would rather feel the crisp wind on their faces and have turf passing under their boots, but desk chores are a must for all districts.

After shuffling the last of these necessary reports, I continue my investigation of a songbird shooting incident relayed to me from WCO Leroy Everett in Perry County. The incident—which I mentioned last month—took place in Leroy’s district, but one of the suspects supposedly resides on my side of the river.

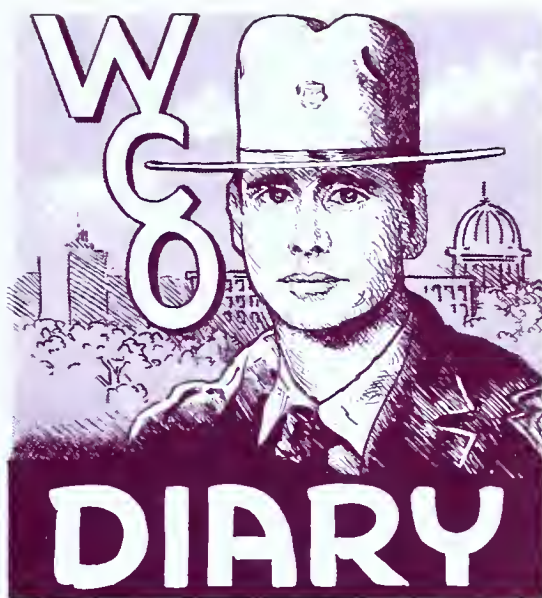
While the case began in a routine fashion, it turned out to be something more.

A light rain falls as I pull up to the suspect’s suburban home. A few sharp raps on the front door bring a middle-age housewife.

After explaining to the woman, Mrs. Tuttle, that a witness observed three fellows shooting at songbirds, and that one of the guys was wearing a hunting license that had been issued to her son, Jake, Mrs. Tuttle relaxes. She says her son moved to New Jersey a couple years ago. Mrs. Tuttle says Jake’s hunting license and coat are in the attic, and that he hasn’t been home since Thanksgiving.

I ask to see the license, and she gets it for me.

I immediately notice that the deer tag is



**By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County**

missing. Also, I quickly notice that it’s a resident license, with no mention of a New Jersey address.

“Seems I’m a bit confused here, ma’am. Didn’t you say that Jake has lived in New Jersey for several years now?” I ask.

“Yes, that’s right,” she says.

“Well, why is the address on Jake’s license this address and not his New Jersey address?” I ask.

“Uh, well, uh . . . I think you better talk with Jake’s father,” she replies.

I think you’re right, I say to myself.

After a couple of phone calls to New Jersey, some record checking and a chat with Jake’s dad, I was able to figure out what was going on. Jake wasn’t one of the fellows who had been shooting at songbirds in Leroy’s district, but Jake now had an even bigger problem. Ever since Jake moved to New Jersey, he had conveniently, but illegally, been purchasing resident hunting licenses. To add to his woes, he bagged a nice 6-point on the previous year’s opening day. He later settled all accounts on a field receipt.

As near as Leroy and I can figure, the witness in the original case must not have had the correct or complete license number. Incomplete or bad information is often supplied with violation reports, but few result in totally unrelated infractions as did this incident.

activities and head toward more information and education assignments. Tonight, Deputy Larry Mummert accompanies me as we address a crowd of more than 400 folks gathered in a high school auditorium to view a noted wildlife cinematographer's latest offerings.

We quickly move on to attend the regular monthly meeting of the Penn-Harris Gun Club in Steelton. We strive to keep in close contact with the sporting community. These meetings allow us to answer concerns and keep members abreast of current Commission activities. Additionally, these organizations can serve as a communications pipeline concerning illegal activity that may be occurring in a WCO's district.

Before we return to our regular patrol duties, Bob Schmitt, Larry and I return with the arrest warrant for the fellow in Lebanon County. He was given ample time to catch up on his delinquent payments, but chose not to do so. We are waiting in his driveway when he returns with his family. Faced with the unpleasant choice of spending the night in the Dauphin County prison, he manages to pay his balance due. Seems like some folks don't handle such matters unless they are forced.

February 24—Even though this district is quite developed, I've been receiving a lot of reported coyote sightings. This afternoon I'm dispatched to handle a young male coyote that was struck on a road below Middletown. The range of these furbearers is obviously expanding, and they now can be found practically everywhere in the Keystone State.

While in the area, I'm radio-dispatched to a nearby farm where a caller heard some shooting. The informant suspects there are some folks shooting small game out of season. While walking across the surrounding fields and woodlots I see no one but then, suddenly, I hear what sounds like a shot. A bit more sleuthing reveals the origin of the presumed shots. Rather than gun fire, the cracking noises are generated from a relay station adjacent to the Three Mile Island nuclear power plant.

Tonight I attend the annual banquet of

the Dauphin County Federation of Sportsmen's Clubs. The event is being held in the county's new Agricultural and Natural Resource Center along Peter's Mountain in Clarks Valley. Guest speaker Dr. Candie Wilderman, Dickinson College, provides a most informative program. She has spearheaded the task of documenting the effects of acid deposition (acid rain) on Pennsylvania's streams, in an effort to support strict controls on sulfur and nitrogen emissions. These byproducts of the combustion of carbon-based fuels are the underlying cause of this "quiet" killer of aquatic life.

She has formed a volunteer citizens group that is actively monitoring various streams on a weekly basis across the state. Their test results are being documented to serve as fundamental evidence for the need to enact responsible legislation. After the meeting her group, called ALLARM, has a new member—me. I agree to monitor several untested streams in my district.

February 28—The Envirothon concept originated in the spring of 1979 as a brainchild of the State Association of Conservation Districts. The program, aimed at high school students, is designed to stimulate learning about our natural environment through competitive events.

Each spring various county conservation districts sponsor these competitions, which are usually held outdoors. A battery of five tests is distributed to teams from participating school districts. These five tests quiz the students on their knowledge of soils, forestry, aquatics, wildlife and current environmental issues. The cumulative results rank the teams on their overall performance; the winners advance to a state competition. Professionals from the five disciplines oversee the test formation and assist in conducting the exams. Regardless of a team's success, the mere participation in an Envirothon fosters a greater awareness and appreciation for our environment.

Today, I meet with county resource specialist Dwayne Forsberg to begin formulating the wildlife test for this year's county competition.

I SEE CHICKADEES almost every winter day. Ten or a dozen of them visit my birdfeeder. Flying bouncily through the woods, they swoop up to land in the gum tree where the feeder hangs. A chickadee will wait for a gap in the queue of nuthatches, titmice and siskins, then dart in and snatch a seed. It will land on a branch, pin the seed with its feet, peck open the shell, and eat the kernel.

My presence, which frightens off the other birds, does not bother the chickadees much. I can get close enough to hear bursts of fluttering from their wings, the ticking of beak on seed hull, their soft metallic calling; close enough to discern, in the black plumage of a chickadee's head, the small liquid eye, in which the low slanting sun often glints.

In winter, chickadees spend most of each day looking for food. They eat insects and their eggs, tiny obscure creatures like plant lice and pear psylla and scale insects; they rifle cocoons and galls, exposing hidden larvae. They nab spiders tucked away under bark scales and in cracks. I once watched a chickadee busily picking fat off a haunch of venison left outside to cool. Vegetable foods include seeds of hemlock, pine, birch, sumac, poison ivy—and, of course, sunflower seeds put out by humans.

A black-capped chickadee weighs about 12 grams—less than half an ounce. It faces the same task each day: Eat enough food to accumulate sufficient fat to fuel the body through the long winter night. On the chickadee's upper breast, in the vee of the clavicles, the wishbone, is a zone that is hollow and red in the morning. By late afternoon, though, it will be level and butter-yellow, stocked with precious fat.

I often notice a burst of activity as daylight dwindles and the cold starts to deepen. Chickadees, as well as other birds, mob the feeder and the hanging suet blocks. Voices scold. Wings flash. I look up a moment later, and all is still; the birds have gone to roost.

Chickadees roost singly, in places

Thornapples



Chuck Fergus

sheltered from the wind: inside hollow branches or trunks, in last summer's nests of other birds, within clumps of dry oak leaves still clinging to their stems, in the depths of blackberry tangles, and at the ends of pine branches where the needles are dense.

A chickadee's normal daytime temperature is 108 degrees Fahrenheit. On a winter night, it will commonly dip 20 degrees lower. When the outside air is 32 degrees, chickadees reduce their "hourly metabolic expenditure"—the amount of fat they burn—by 23 percent. According to ornithologist Susan Budd Chaplin, this nocturnal hypothermia "is not a last resort but a first defense . . . a physiologically sophisticated set of controls whereby body temperature cools to a specific level and is maintained there precisely."

Intense Shivering

Chaplin, through field and laboratory studies at Cornell University in Ithaca, NY, found that a chickadee shivers while it sleeps. As nighttime temperatures drop, the shivering does not, as one might expect, increase. Rather, it becomes intermittent. The bird's breast muscles shiver intensely, then relax and rest, then shiver again. These periodic bursts of activity maintain the lowest body temperature possible, doling out the calories needed to sustain the spark of life.



When Chaplin examined birds soon after dawn, she found none with sufficient fat reserves to last through another day and night at normal activity levels. So what happens when a blizzard hits—when snow swirls, winds howl, and the temperature plummets for two or three days on end? Unquestionably, some birds die. A survey in Illinois before and after a severe storm found that the chickadee population declined by 22 percent.

Lethargic Birds

The chickadee which survives may do so by extending its torpor. Margaret Brittingham studied chickadees in Wisconsin for three winters in the mid-1980s, conducting research for her doctorate in wildlife ecology. During bitterly cold weather, she says: "We couldn't find many chickadees, and the few we located were very lethargic. They sat motionless, feathers fluffed out, feet tucked up into their plumage, facing into the sun." Perhaps the energy gained from foraging was less than the energy that had to be spent: A chickadee would have to eat a huge quantity

of katydid eggs and chilled spiders and sawfly larvae just to break even.

Brittingham noted, however, that even on the bitterest days chickadees would still feed at bird feeders. Somehow their bodies understood that they could replace lost energy *and* build up new reserves. Chickadees living near feeders had greater body masses than did birds on wild natural sites, and higher overwinter survival rates: 69 versus 37 percent.

Why should a creature walk such a thin line between starving and living? Would it not be advantageous to carry extra fat, to keep body and soul together through the harshest days? Many birds do just that, especially ones that migrate long distances. But black-capped chickadees don't migrate. They tough it out—from Pennsylvania, near the southern edge of the species' range, north to Canada and Alaska. And they don't fatten themselves excessively, even if they have access to a feeder. A bulked-up bird is less agile, more likely to get caught by a Cooper's or a sharp-shinned hawk—raptors that periodically buzz my feeder, but that I have never seen kill a chickadee.

Brittingham netted 576 chickadees and marked each with three colored bands stacked on either the right or the left leg. "Deciphering colorbands on a chickadee foraging in the top of a tree in the middle of a Wisconsin winter is an undervalued skill," she wrote later. "Successful observers were tolerant of the cold, patient, not colorblind, and could distinguish between right and left legs and top and bottom when a chickadee was hanging upside down at the top of a tree."

Sitting through all-day feeder watches, Brittingham would count the seeds eaten by each banded bird. She found that each individual took an average of 45 seeds per day—less than 25 percent of its daily energy requirement. "The birds were hedging their bets, keeping their options open," she says. "Flocks would move about keeping tabs on several food sources in addition to the feeder—which is a good strategy, in

case a food source becomes depleted or covered with ice or snow." Chickadees with home ranges close to the feeder arrived earlier in the morning, stayed later in the afternoon, took more seeds, and got a greater percentage of their energy requirements from the feeder.

Brittingham has started another study, this one in central Pennsylvania; last winter she and graduate student Erica Rasmussen monitored 50 chickadees in the Rothrock State Forest, where there are no bird feeders, and 20 using feeders in the town of State College. They found "similar survival rates—95 percent per month. This is quite high, compared to the coldest months in Wisconsin." Brittingham thinks feeders have less of an effect on survival in Pennsylvania than in regions where winters are more severe.

In winter, chickadees gather in small flocks. Males are dominant over females, and older birds are dominant over birds hatched the preceding year: The dominant birds feed first. Most flocks are six to 10 birds. They move slowly through the woods, their members giving a subtle high-pitched call, *tseet*, to maintain contact.

In western Massachusetts, Susan M. Smith has studied interactions and relationships in the winter flocks. "Each chickadee adopts one of two life styles," she writes. "They are either regulars, always found in the same flock where I originally caught them, or floaters, which range among three or four flocks."

Flocks occupy a territory of one-half to three-quarters of a square mile—two or three times the size of a breeding territory of a pair. Writes Smith, "The area defended by a typical flock of five pairs is not large enough for five breeding territories. Thus, even if all ten birds survive, only the few highest-ranked pairs will breed in the area at the end of the winter. Most of the others will be driven away [and] will not get to breed."

Smith found that several "floaters" would periodically check in with each flock. These young birds had never



The *Wingless Crow* is a collection of 33 "Thornapples" columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

bred in the area before, and were at the very bottom of the flock's pecking order. But they played an important role. When a ranking male or female died, a floater would move in and replace the lost bird—even if that bird was the highest-ranking, or alpha, male or female.

Smith wrote in a 1985 article in *Natural History*: "Over the past five winters, I have 17 records of banded floaters—11 females and six males—that succeeded in getting a regular's slot

in this manner. All 17 birds not only gained high-ranking positions with a regular mate . . . but also obtained a breeding territory the following spring. Each bred with the mate of the bird it replaced." A territory and the chance to breed, Smith asserts, are "the ultimate goal of every chickadee."

Fifty years ago, Edward Howe Forbush wrote in his *Natural History of the Birds of Eastern and Central North America*: "Let the winds howl, let the snowstorm rage—it may be bitter cold, but Chickadee worries not as he hustles about to keep his little stomach filled with insects."

Forbush was probably right: It's doubtful that chickadees ever worry. But their life in winter is far more dramatic and complex than his passage implies. I look at these small, energetic birds in a new light, as they cluster at my feeder or when I meet a flock out foraging in the cold and snowy woods.

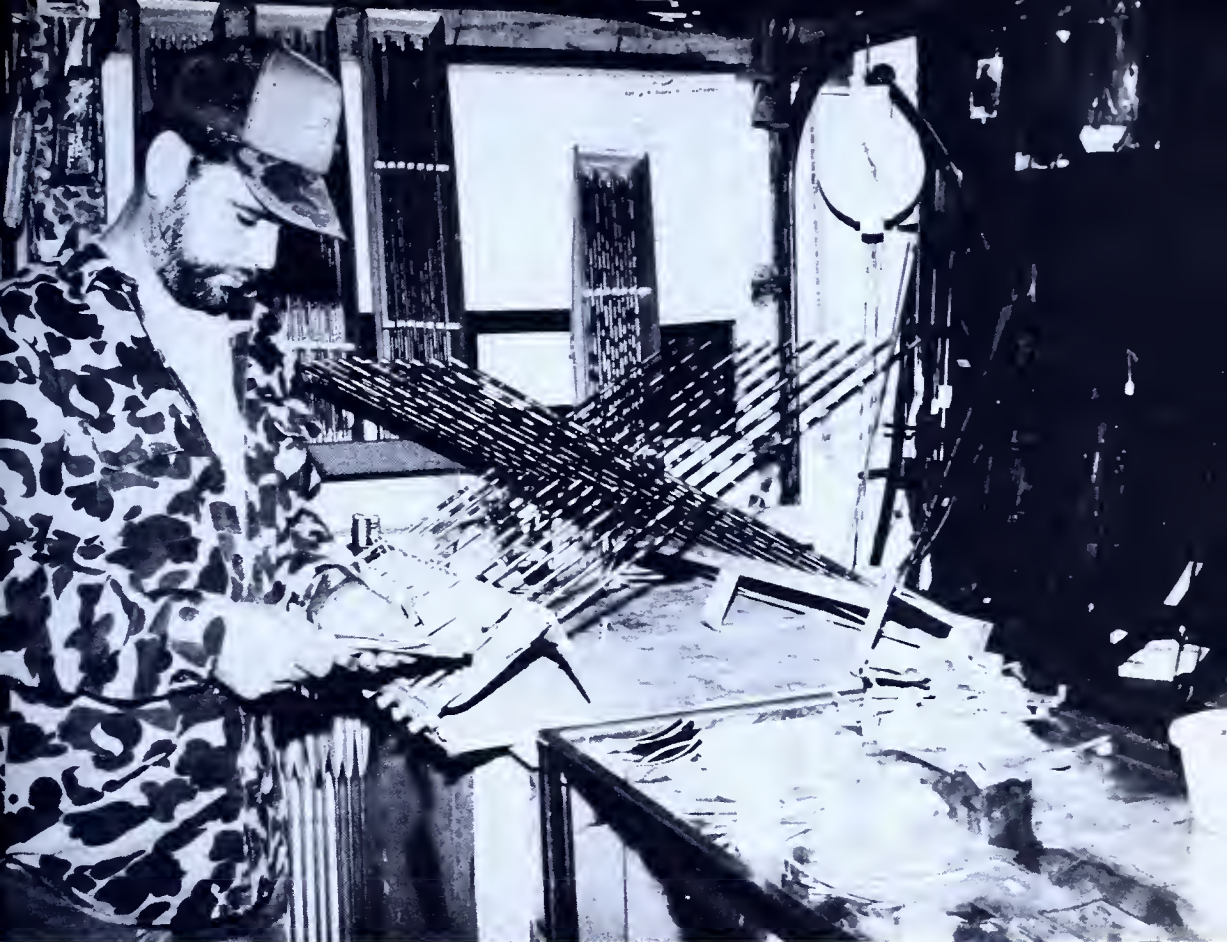
Books in Brief...

(Order from publisher, not from Game Commission)

The Wild Side, by Scott Shalaway, Saddle Ridge Press, P.O. Box 21, Cameron, WV 26003, 140 pp., \$9, delivered. Several years ago Scott Shalaway left his post as a zoology professor at Oklahoma State University, moved to rural West Virginia, and launched a career as a writer, speaker and naturalist. Since then his nature columns have been appearing regularly in many Pennsylvania newspapers and other outdoor publications. Presented here is a collection of 48 nature columns by Scott, each entertaining and informative. Some columns cover a particular species, such as ruby-throated hummingbirds and monarch butterflies, while others address certain subjects, why birds sing and deer antlers, for example. Illustrations by frequent GAME NEWS artist Mike Watson complement the text.

The Night The Bear Ate Goombaw, by Patrick F. McManus, Henry Holt and Company, Inc., 115 W. 18th St., New York, NY 10011, 184 pp., paperbound, \$6.95. McManus, perhaps the country's premier outdoor humorist, is at it again with this latest collection of short stories. The chronicles of McManus' hapless adventures, such as a quest for "dumb" antelope, are interspersed with informative "how to" pieces on subjects like what to do about annoying people in camp. Almost any sportsman can identify with the writer's tales, and they're guaranteed to bring a smile.

The Frontier Rifleman by Richard B. LaCrosse, Jr., Pioneer Press, P.O. Box 684, Union City, TN 38261, 183 pp., paperback, \$14.95, plus \$3.50 s&h. Subtitled "His arms, clothing and equipment during the era of the American Revolution, 1760–1800," the book's first half focuses on contributions that riflemen made to the war for independence—which historians and collectors will find interesting. The author devotes the remainder of the book to detailed drawings and descriptions of clothing and accoutrements carried by the black powder rifleman. Muzzleloading enthusiasts, especially those who like to make their own accessories, can make great use of the author's knowledge and attention to detail he imparts in the section.



FLETCHING ARROWS is big business for archery shops, and the advent of the metal and plastic fletching jigs has simplified the task. Die-cut feathers and machine-molded plastic vanes are normally found on modern arrows, supplanting the use of off-the-bird feathers. Target shooters prefer plastic vanes, but many archers utilize feathers for hunting because they are more forgiving if they hit the bow or small obstruction during flight.

Critical preparations . . .

To Send The Shaft

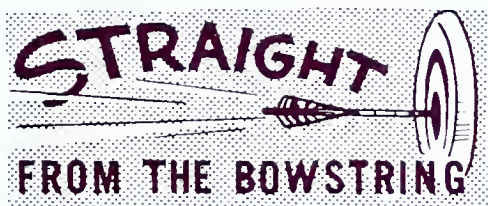
By Keith C. Schuyler

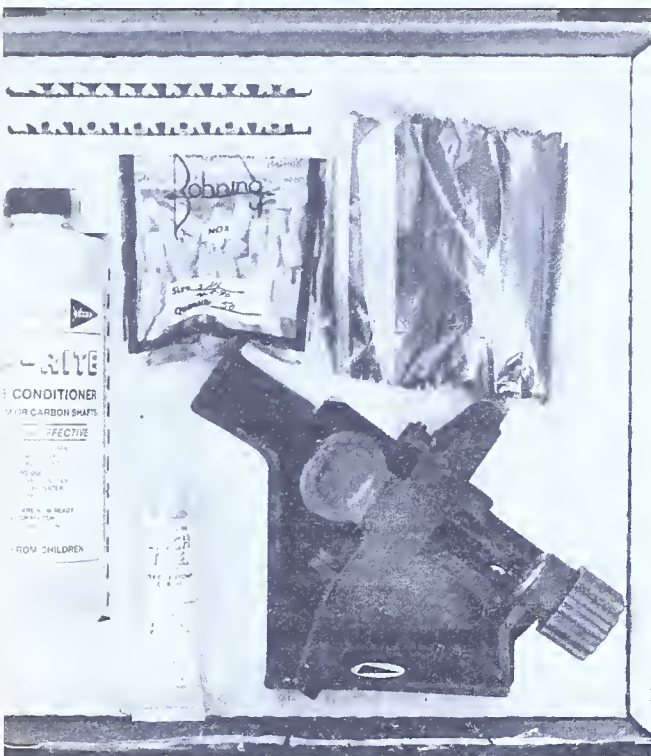
THERE WAS A time in the written history of archery when eagle feathers were the choice of discriminating bowmen to provide the guidance system for arrows. Today, mere possession of an eagle feather can get you into trouble with state and federal officers under endangered species laws.

Yet, when Roger Ascham wrote his famed *Toxophilus*, about 1545, he admitted the difficulty in finding eagle feathers, "they fly so high and build so far off, that they be hard to come by." The only practical means to guide arrows, until

the invention of plastics, were feathers. As Ascham emphasized, "God sendeth us good feathers, but the devil naughty fletchers."

Since die-cut feathers and machine-molded plastic imitations have become available, and metal or plastic jigs will





hold the fletching where you want it, “naughty fletchers” are pretty much a problem of the past. Two areas in which problems can develop are in preparation of the shaft and the type and amount of glue used to affix the fletching. Many years ago, Fletch-Tite was developed by Bohning Company to eliminate gluing problems. It is to fletching what old fashioned fly paper was to flies. The material is available in bulk quantity for those in the business of arrow making, but occasionally it is cut too liberally with thinner by those trying to stretch it too far. By the same token, if the shaft—wooden, plastic or aluminum—isn’t properly prepared, fletching vanes may not adhere well. Bohning produces a surface conditioner, Prep-Rite, for aluminum and carbon shafts.

Personal Choice

Choosing between plastic vanes or feathers is a personal choice, but each has certain properties that should be considered.

Plastic is unquestionably more durable. Further, manufacturing methods make it possible to produce a more uniform base to attach a plastic vane to the

THE BOHNING COMPANY produces a fletching kit for do-it-yourselfers. It includes a jig, surface conditioner for preparation, adhesive, fletching and arrow nocks. The type and number of vanes and the degree of helical are choices the archer can make himself.

shaft. An arrow with plastic vanes is said to be more quiet in flight than one fletched with feathers. However, bow and arrows must be tuned more closely to perfection. Vanes must not touch anything in flight or their effectiveness is immediately canceled. By far the majority of target shooters who shoot some variation of the compound bow lean to plastics. Yet, many of these archers use feathers for big game hunting purposes.

Why? Aside from any sentimental attachment to this primitive means of arrow guidance, feathers are more forgiving of ineptness. Whereas plastic is more sensitive if a vane touches any part of the bow or attachments, a feather will compress and immediately return to its original shape. The same is true if a feather contacts a twig or other minor interference on the way to the target.

Feathers do tend to compress if they become wet or brush against anything while on the bow or in the quiver. If one feather is so compressed, it can cause the arrow to steer off course. Natural oils, which are replaced when the bird is wearing the feather, are eliminated during the dyeing process and normal usage. There are water repellent sprays however, that minimize the effects of rain or dew. I have found that Drifab, sold by Amway to make garments water repellent, works well on feathers. Some sprays will repel water, but they negate their effectiveness by making the feathers too stiff. If feathers get a bit ragged from tours through laurel and briars, a session with a tea kettle or other source of steam will usually straighten them.

Feathers represent a remarkable work of art and mechanics by nature. One of the best descriptions comes from Guy Murchie’s new book, *The Joy of Songbirds*: “It is hard for the human mind to take in the intricacy of this microscopic weaving that is a feather. There is nothing chemical about it. It is entirely mechanical. If you pull the

THE FLU-FLU ARROW is an example of specialized fletching. Its purpose is to slow the arrow after a short distance to increase the chances of recovery. It is primarily used for aerial shots. Additional vanes or exaggerated helical can accomplish the same task.

feather vane apart in your fingers, it offers outraged resistance: you can imagine the hundreds of barbicules and thousands of barbicels at that particular spot struggling to remain hooked together."

Even when eagle feathers were once preferred, particularly for royalty, many others more readily obtainable were also used. Feathers from any large bird might have been used in days of yore. The English once fletched with peacock feathers, but they found that geese produced ones that were more durable. Some American Indians used crow feathers.

Attaching feathers to the shaft has always been a problem. Early Indians simply bound the feathers, fore and aft, with sinew. Some sort of glue was popular where it was developed, and still other Indians found a method of actually sewing feathers to the shaft. Eskimos discovered a way to split shafts with thin ivory blades so that quills could then be forced into the narrow slit where it was held fast by natural pressure.

About 1530, Spaniards returned domesticated turkeys that they had taken from the wild in this country. Fletchers soon found that turkey feathers made a high quality vane, and today practically all fletching comes from turkey feathers. The feathers readily take dye, to meet all arrow needs, and they are sufficiently durable for fletching.

Those who shoot longbows or recurves are wedded to feathers if they shoot off the bow's shelf or use a primitive rest or the hand to hold the arrow in place. If the feathers are not clearing the bow properly, one feather vane will soon show wear. A way to determine if any vane is suspect is to treat the outside edge with chalk and then look for tell-tale white marks on the bow or the arrow rest. Repositioning the nock will sometimes cure the problem, or there



may be more serious imperfections in the shooting setup.

Vane Shape

At one time, shape of the finished feather was somewhat controversial. Some preferred the sail shape produced simply by cutting the larger end of the tapered feather abruptly to its base. This cut however, produced more noise and considerable drag in the air. A shield cut, with the trailing edge of the feather tapering to the shaft proved popular for a time. But nearly all commercial feathers and plastics today take the shape of an elongated parabola. With no cutaway edges, it is the most efficient and quietest in flight.

Length is a matter of choice, but vanes for most hunting arrows are usually about five inches long and 1½ inches wide. Target shooters and those employing overdraws usually have more precise requirements.

The amount of twist, or helical, in positioning the vanes is another matter of choice. At one time, considerable helical was employed to give the arrow

more spin and equalize in flight any imperfections in the head and shaft. But today even most wooden shafts, and heads, are so well made that a much more modest twist is desirable and acceptable. Each degree of helical will slow the arrow's flight.

The number of vanes, whether feather or plastic, is again a matter of choice. Although some aborigines still use but two feathers, and some archers prefer four, three-vane fletching is by far the most popular.

Cock Vane

With three vanes, the one that sits at right angle to the string, and hence the nock slit, is almost invariably of a different color and is known as the cock feather, or today, the more inclusive term, cock vane. The other two vanes are usually of identical color. There are nocks, with a tiny protrusion which can be felt with the thumb, that supplement or take the place of a cock feather, and the arrow can be lined up on its rest by feel alone. In any event, it is important that the cock vane sit midway on the shaft so that the other two vanes will clear the bow properly.

Color of vanes has little importance except for two considerations. Field target shooters prefer bright colors for fletching and for nocks to make it easier to find arrows that bury themselves in the leaves or grass. Hunters usually prefer subdued colors so that an animal's vision is not attracted to a quiver full of arrows. Actually, modern evidence indicates that only white is apt to be easily seen by animals such as deer. And white might invite careless scrutiny from a foolish hunter mistaking it for the south end of a whitetail.

There is a certain satisfaction, and some savings in the long run, in doing things yourself—up to a point. Many

years ago, Henry A. Bitzenberger, Los Angeles, went the same route that others of us followed to fletch our wooden arrows. He tied his feathers on or fastened them in place with straight pins until the glue dried. Tiring of this imprecise system, he developed a metal jig known as the Fletchmaster that became a standard for both do-it-yourselfers and commercial arrow makers.

In recent years, Bohning Company came out with an arrow fletching kit that provides all the essentials to do your own arrows. It includes a fletching jig, plastic vanes, ferrule cement, arrow holders, shaft conditioner and enough nocks to put together at least four dozen arrows. Of course you need a supply of shafts of your size and length as well as heads of your own choosing.

A departure from conventional fletching, recommended here for use only with longbows and recurves, and with wooden arrows, is that on the so-called flu-flu arrow. I suspect that this is a corruption of the French *frou-frou*, which means a rustling, as of a skirt when it is moved. These are made to slow the arrow after a short distance for aerial shots without overly reducing accuracy. Up to eight vanes, or exaggerated helical on fewer vanes, will also accomplish the purpose. A tight winding of plastic fingers will produce similar results, and it is sometimes combined with regular fletching. These fletchings will permit tree shots at squirrels with a reasonable chance of recovering the arrow. Or they can be used on pheasants under controlled conditions.

Even an airplane is helpless without some sort of guidance system to keep it straight and level when desired. An arrow needs the best we can build in it. Once it is released, it is too late to make adjustments for that all important shot.

Thoughts While Walking

To live happily with other people one should only ask of them what they can give.

—Tristan Bernard



DON'S RUGER Model 77 RSI Mannlicher has an 18½-inch barrel, which some hunters claim reduces velocity too much. Lewis refutes that contention, proving that barrel length has only a minor effect on velocity. Lengthy barrels date back to Colonial days and the Pennsylvania rifle, and were carried through to shotguns produced at the turn of the century.

Long Barrel vs Short Barrel

By Don Lewis

Photos by Helen Lewis

“WHAT KIND of rifle is that?” a hunter asked when we met on a leaf-covered tram road. “It’s a neat compact looking outfit.”

“It’s a Ruger Model 77 RSI Mannlicher, chambered for the Winchester 308 cartridge,” I replied. “At my age, I appreciate its 18½-inch barrel, which makes it a pleasure to carry afield. I’ve had pretty good success with it in the deer woods, too.”

“At short range,” he injected.

“I don’t follow you on that,” I answered. “What’s range have to do with it?”

“For your information,” he said with a grin, “a short barrel just can’t whip up enough velocity for shots much beyond 100 yards. Here, take a look at my 308 outfit. I had a 26-inch barrel installed after the factory, 22-inch failed to reach several deer that were more than 200





FOR TESTING, Lewis used a Ruger Model 77 Mannlicher with 18½-inch barrel, a Savage Model 99 with 22-inch barrel and a Ruger Model 77 with 22-inch barrel. All were in 308 caliber, and he chose Remington's 150-grain Core-Lokt Pointed Soft-Point ammunition. The longer barrels showed only a 130 fps gain in velocity over the shorter barrel.

yards away. I figure I gained at least 300 feet per second in velocity with the additional four inches of barrel length, and I hit 'em a lot harder with the higher velocity. With 7½ inches more barrel length than what you have on your Ruger, my bullet would be traveling more than 550 fps faster.

"Are you pulling my leg?" I cut in. "The velocity difference between a 22-inch barrel and a 26-inch job would be far less than what you claim. Even a bullet from the 18½-inch barrel on this Ruger wouldn't be traveling 550 fps slower than one from your 26-inch barrel. At best, you're gaining no more than 275 feet per second over my outfit, when the same load combination is used. I think I'm being generous with my estimation; a gain of 35 fps for every additional inch of barrel would be closer than the 75 fps per extra inch you're suggesting."

He started to retaliate, but then just shook his head in disbelief and walked away. He was convinced that I was off base with my thinking, just as I was positive his statements on velocity gain were incorrect.

The long barrel concept really got started back in Colonial times, when the Pennsylvania rifle replaced the

short, cumbersome military outfits that had been brought over from Europe. Barrel lengths on the slim Pennsylvania rifles ran out to 44 inches. A barrel stretching out 44 inches is bound to make the rifle muzzle-heavy. Yet while that may seem to be a drawback, the extra weight out front made the rifle easier to hold in offhand shooting. Also, it put the balance point farther toward the muzzle, which made the rifle easier to carry.

The long barrel worked well in eastern terrain, but was a distinct drawback for westerners who needed short outfits to fit in saddle scabbards. Over the ensuing years barrels became somewhat shorter, but the Civil War military rifle still carried a 40-inch barrel. As late as 1892, when the Krag became the U.S. military rifle, barrel length remained at 30 inches. Only the cavalry used carbines. The military finally settled on a 24-inch barrel when the 30-06 cartridge began life in early 1900s.

One reason the rifle hunter of the gaslight era stuck with long barrels was probably due to the fact that most shotguns of that time period had long barrels. A 1901 gun catalog is filled with a variety of shotguns carrying 30- and 32-inch barrels. In 1933, for instance,

OEHLER'S 35P SKYSCREEN III Chronograph recorded the test velocities. The first screen was placed 10 feet from the muzzle, the second screen four feet farther out. Instrumental velocity was recorded at 12 feet; true muzzle velocity would be slightly higher.

many shotguns still boasted barrel lengths out to 32 inches. The small game hunter back then thought there was a correlation between barrel length and velocity. In other words, a long barrel delivered a shot charge at a higher velocity than a short one.

I can't say for sure that the military started the trend for shorter barrels, but the M16 is down to 20 inches. For a good many years, rifle manufacturers stuck with the 26-inch barrel length used by the military. I think it's reasonable to state that when the military opted for shorter barrels, the U.S. rifle builders started cranking out rifles with 22- and 24-inch barrels. The shortest factory offering I can think of is a 16-inch barrel on the Model 94 Winchester carbine.

Getting back for a moment to shotguns, I recall the hot shooting-related arguments in our village grocery store, which was the focal point for the gathering of the hunting clan. My brother Dan was well-read on shooting ballistics, but he was unable to convince a dyed-in-the-wool long barrel shooter that the 28-inch barrels on Dan's Crescent 16 gauge double shot just as hard as a 32-inch outfit. In exasperation, Dan finally blurted, "Your 32-inch barrel just cuts the distance down by four inches."

Maybe Dan was not absolutely correct with that statement, but it was a reasonable answer. From a ballistic standpoint, there is some velocity gain in longer barrels. I have chronographed hundreds of rounds, but my results between long and short barrels were never completely clear. In most tests, there was a gain with a long barrel, but it seldom exceeded 30 fps. In some tests, there was little if any gain. Nothing very conclusive, although I believe long barrels with certain powders give higher velocities than short barrels.



I have often read that each additional inch of barrel length results in velocity increases of from 25 to 35 feet per second. If that is true, the fellow with the 26-inch 308 might have 250 feet per second more muzzle speed than my 18½-inch barrel. The additional 7½ inches of barrel length never gave him 550 fps, as he thought. That would amount to about 75 feet per second per additional inch.

The long barrel advocates are quick to put forth the argument that long barrels are more accurate than short barrels. That sounds reasonable and, even though it isn't true, a long barrel on a rifle gives the impression it's more accurate. Just place a long barrel outfit beside a carbine, and most shooters will say the long barrel is more accurate. Here's one reason we tend to think that a long barrel on a rifle makes it more accurate.

In the heyday of open sights, long barrels offered a longer sighting radius. Consequently, they were easier to use and did offer more sighting precision. The accuracy didn't come from the barrel length exactly, but from the longer distance between the two sights.

Longer shotgun barrels do not make



them shoot harder, as many hunters believe. Shotgun barrel lengths beyond 23 inches offer nothing in the way of increased velocity. However, to prove their point, they normally point out that many trap guns have 34-inch barrels. Here again, the longer barrel on a trap gun is not to increase the velocity, but to make it easier to swing and follow through. A pheasant hunter would be more prone to use a longer shotgun barrel than a grouse shooter. Pheasants are normally out in the open, and the hunter has ample time to “swing” through the flying target. Grouse hunters are faced with quicker and closer shots in heavy brush. The long barrel is a bit more difficult to handle under those conditions.

I’m not predicting the demise of the long barrel. Varmint hunters and western big game hunters can benefit somewhat from a longer barrel. In fact, Weatherby still offers 26-inch barrels in most of its rifles. The 26-incher may not come under the classification of a long barrel, but most gun manufacturers are sticking with 22-inch barrels on non-magnums and 24-inch on magnums.

SOME SHOTGUNNERS hold that longer barrels cause the shot charge to hit harder, often citing the fact that trapshooters tend to use lengthy barrels on their guns. Longer barrels are not chosen for their effect on targets, but rather for their swing and follow-through characteristics.

I have a strong feeling that the extra inches on Weatherby outfits are not for velocity gain. Literally any magnum cartridge produces a high noise level. The closer to the shooter’s face, the more distracting the muzzle blast becomes. That may sound like a weak argument for the long barrel, but a magnum’s high-intensity muzzle blast close to the face is bound to have a detrimental effect on most shooters—plus the fact it can damage the shooter’s hearing. Of course, sportsmen should wear ear protection when shooting any firearm, regardless of barrel length. New hearing protection technology also allows it to be worn with good effect while hunting.

I’m convinced that barrel length on a big game rifle is not really important. I prefer a short barrel because it makes a rifle more compact, easier to get through brush and reduces its weight. Those are important factors to consider, especially for older hunters. As far as velocity gain and loss, it is of little consequence for most hunting shots. Varmint hunters tend to stick with 24- to 26-inch barrels. The extra inches offer more time for slower burning powders to completely ignite.

Many years ago I asked a well known barrel maker if long barrels were important on varmint rifles. He said there was some velocity gain with a long barrel but, for practical purposes, a 24-inch barrel was adequate. He believed it was more or less a personal matter with varmint shooters.

Although I had killed several deer with the RSI Ruger 308 Mannlicher, I was still wondering if its velocity was much slower than that produced by a 22-inch barrel. There was only one thing to do—chronograph the 18½-inch barrel on the RSI Mannlicher against a 308 with a 22-inch barrel. A friend loaned me his Ruger Model 77

308 for the tests. I selected Remington's 150-grain Core-Lokt Pointed Soft Point factory cartridge, which showed a book velocity of 2820 fps.

To get even a better indication of the relationship between barrel length and velocity, I included a Savage 99 308 with a 22-inch barrel. I felt five shots from each rifle would give fairly accurate results. As I set up the Oehler 35P Skyscreen III chronograph, I wondered if I would have to rescind my statement that each extra inch of barrel did not increase velocity up to 75 feet per second. Well, 15 shots through the skyscreens would either make me look good or force me to admit my reasoning was off base.

I fired the Ruger M-77 first. The average instrumental velocity at 12 feet (first screen 10 feet from muzzle, screens spaced four feet apart, with the reading taken from muzzle to half the distance between the screens or 12 feet) printed out at 2822 fps. True muzzle velocity would be slightly higher. High shot was 2848, low 2784. Standard deviation was 21, which means 70 percent of all shots were within 21 fps above or below the average. Standard

deviation is an accepted measure of uniformity. A low Sd means more uniformity than a high Sd, hence a low Sd is more desirable than a high one. The Ruger RSI was next. Average velocity was 2692 fps. High was 2710, low 2677 with an Sd of 14. The 22-inch Savage 99 nearly duplicated the 22-inch Ruger. Average was 2820, high 2842, low 2805 with an Sd of 15.

The longer barrels on the Ruger M-77 and Savage 99 printed out an average gain of 130 fps, which comes out to about 37 fps for each extra inch of barrel length.

Naturally, a 15-shot chronograph test can't be considered absolute. However, I think that because both 22-inch barrel outfits fired nearly identical velocities, it's enough proof to state there is only a slight velocity gain with longer barrels. Most ballisticians believe it takes a gain or loss of 250 fps to make a significant change in the arc of trajectory, or to substantially increase or decrease kinetic energy.

I already feel better about my compact Ruger RSI Mannlicher. It's a great deer outfit, and I'm not a bit concerned about its short barrel.

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In the wind

j. scott rupp



The Texas Parks and Wildlife Department is considering sponsoring an awards program to recognize landowners and managers for creating good habitat for whitetails, mule deer and antelope. Scores from trophy animals meeting minimum requirements would be published annually, along with the name of the landowner, general location of the kill and the hunter's name. The landowner and hunter would receive awards. Property owners control about 97 percent of the state's land.

A range enhancement program jointly conducted by Wyoming's game department and the U.S. Bureau of Land Management should prove a boon to mule deer of the Wyoming Mountain Range. A process called anchor chaining, in which a large, specially designed chain is dragged across an area, benefits wildlife and livestock. Anchor chaining manipulates vegetation, removing older sagebrush plants and allowing younger, more desirable plants to flourish.

According to the Institute of Scrap Recycling Industries, recycling ferrous scrap—such as old machinery and cars—to produce steel reduces air pollution by 86 percent, water pollution by 76 percent and mining wastes by 97 percent over using raw ore. The process also saves 74 percent of the energy normally required and reduces water use by 40 percent. The recycling of nonferrous metals supplies a good deal of the raw material required to produce the following: aluminum, 32 percent; copper, 43 percent; and lead, 55 percent.

The National Shooting Sports Foundation has developed a quarterly newsletter to help sportsmen's clubs and commercial shooting ranges deal with such challenges as noise pollution, housing development encroachment, insurance costs and dwindling membership. The *NSSF Gun Club Advisor* is free, and club officers who have not already received the newsletter may write to NSSF, 555 Danbury Rd., Wilton, CT 06897-2217 for a subscription.

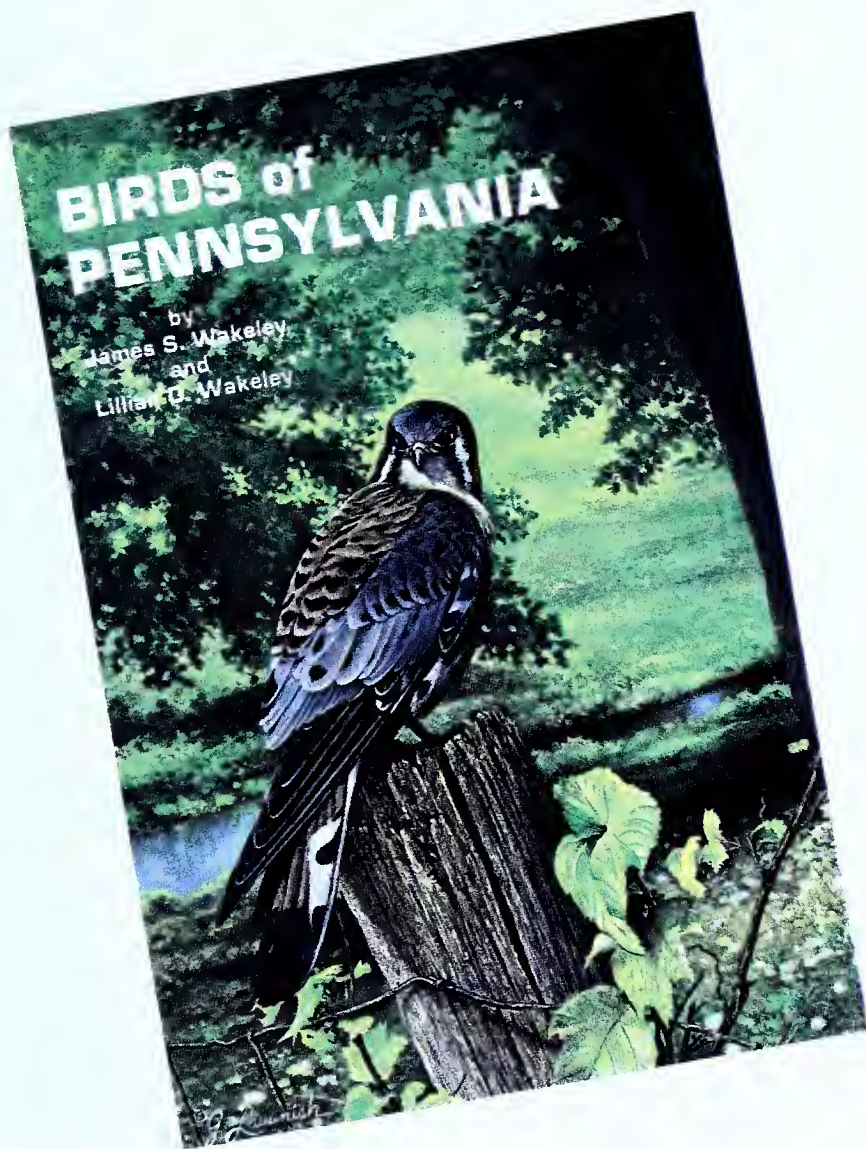
A Michigan whitetail fawn that was ear-tagged in its winter yard last February was killed in archery season 25 miles away. State biologists are studying how far whitetails move from their winter yards to summer range.

Missouri game biologists are studying an innovative method to control deer damage. An invisible fence, which uses a radio wave-emitting wire buried or laid on the ground, is strung around the area to be protected. Dogs are free to roam the grounds and chase deer, but they wear shock collars that are attuned to the fence's wavelength and soon learn the boundaries beyond which they can't pursue the marauding whitetails.

The U.S. Forest Service reforested 492,000 acres on national forests during its 1989 fiscal year, a record for the agency. Most of the efforts were directed toward rehabilitating areas burned by major wildfires in California, Oregon and Washington during 1987.

Conservation officers in Florida raided a tiny shed on Walt Disney World property and found 17 vultures crammed inside. The birds allegedly had been illegally trapped and held without food, water or ventilation by park employees—apparently to protect an exotic bird rookery. The amusement park, under a pre-trial agreement, agreed to pay a \$75,000 fine that will go to help fund the state's environmental education and information efforts. The case was initiated by an anonymous phone call to Florida's anti-poaching hotline.

Answers: Quail, Skunk,
Osprey, Chipmunk, Opossum.
Bonus: Barn Owl.



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Birds of Pennsylvania: Natural History and Conservation, a completely new book by Jim and Lillian Wakeley, includes the most up-to-date information on bird biology and behavior, and the kinds of birds commonly found in the state, arranged according to the type of habitat where they are most likely to be seen. This 214-page hardcover book, supplemented with 40 full-color pages featuring the Game Commission's popular bird charts and previous GAME NEWS covers, is being sold for \$10, delivered.



Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. If you are not sure of which maps you want, write for a PGC map order form.

PENNSYLVANIA GAME NEWS

MARCH 1991

ONE DOLLAR





At the Den, featuring a pair of red foxes by Lancaster County artist Laura Mark-Finberg, is the ninth limited edition fine art print available through the Game Commission's "Working Together for Wildlife" program. As with previous editions, *At the Den* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125, delivered; framed prints are an additional \$97.50. Limited numbers of the 1986, '87, '88, '89 and 1990 prints, featuring the kestrel, elk, egret, white-tailed deer and bald eagle, respectively, are still available. Invest in the future of Pennsylvania's wildlife—and yours, too. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

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FEATURES

They're Only Wood	4
By Tom Duran	
The Poolroom	8
By Leo A. Bressler	
Follow-Up Trapping	14
By Joe Kosack	
Natural Retrieving	17
By John W. McGonigle	
The Ranger	22
By Paul A. Matthews	
Wildlife and Agriculture	26
By Bernard J. Schmader	
Wyoming Adventure	29
By Sal & Bernadette Pitera	
A Special Place	32
By N. J. Anderson	

NEWS

Books in Brief	21
Field Notes	34
Conservation News	39
In the Wind	64
By J. Scott Rupp	

COLUMNS

It's Only Natural	42
By Linda Steiner	
GAMEcooking Tips	44
By Carol Vance Wary	
Outdoor Wildlife Learning	45
By Bill Einsig	
Fun Games	47
By Connie Mertz	
WCO Diary	48
By Keith A. Snyder	
Thornapples	52
By Chuck Fergus	
Scent Scene (Archery)	55
By Keith C. Schuyler	
Variables vs. Fixed Powers (Guns)	59
By Don Lewis	

COVER CARVING BY TOM DURAN
(Cover Story on Page 4)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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Take The Matter Into Your Own Hands

THREE HUNTERS were killed on the opening day of turkey season last fall. Then, by the time the year drew to a close, a total of 46 turkey hunters had been shot, eight in the spring and 38 in the fall. For comparison sake, the number of turkey hunting accidents from 1975 through 1989 averaged 25 (24.8) per year.

Suffice to say, three people being killed in a single day, coupled with a near doubling of what may be considered a normal number of turkey hunting accidents, raised a great deal of concern within the Game Commission and among sportsmen and the general public.

In fact, even before all the accident reports had been received, Game Commission officials held an informal meeting with representatives of sportsmen's organizations and others involved in the sport to discuss ways of addressing this alarming rise in turkey hunting accidents.

The fact that the three opening day fatalities were caused by hunters using rifles led to the suggestion that the fall season should be limited to shotguns only, and that shot size be limited to No. 4 lead or No. 2 steel. (Rifles have never been permitted during the spring gobbler season.) While only five of the 38 fall accidents involved hunters using rifles, statistics clearly show that rifle accidents are much more likely to result in deaths than those involving shotguns. Also, the fact many other states prohibit rifles for fall turkey hunting serves as a strong precedent for such a regulation.

Requiring fluorescent orange is another option being considered. At this point, there is strong sentiment to require all small game hunters and turkey hunters to either wear a prescribed amount of fluorescent orange or to use a fluorescent orange safety alert band. The only exceptions would be while hunting doves, waterfowl or crows. The use of fluorescent orange, of course, runs counter to commonly accepted turkey hunting tenets, yet its effectiveness in preventing "shot in mistake for game" and "victim in line of fire" accidents is irrefutable, and of the 46 turkey hunting accidents last year, all but three were a result of one or the other of those two causes.

No solution is going to please everybody, but every option is being thoroughly considered. And that's where you can help. The agency wants to hear how you feel about this issue and the options being considered. While there's no intention of resolving this problem by a popular vote, it is an important issue in which input from all quarters will be valued.

Send your comments to: "Turkey Hunting Safety," Pennsylvania Game Commission, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

The Commissioners plan to make a formal proposal at their April meeting, and then act on that proposal in June. So get your comments in now.

Regardless of what new regulations may or may not be enacted, every hunter should take it upon himself to be absolutely safe, to make sure he is neither a victim nor an offender. As hunters, it's vitally important to positively identify your target. Make absolutely sure, in the spring season, that what you're shooting at is a bearded gobbler. And, to make sure you don't end up a victim, hunt defensively and, by all means, use fluorescent orange. — *Bob Mitchell*

SPORT

SPORTSMEN POLICING OUR RANKS TOGETHER

- **BE SURE**
- **BE SEEN**
- **BE SAFE**



PENNSYLVANIA GAME COMMISSION

It's hard to believe . . .

They're Only Wood

By Tom Duran

ARCHEOLOGISTS tell us the fabrication and use of what we commonly refer to as the "decoy" dates back a thousand years or more. In the unchronicled years of the last millennium, North American Indians were fully aware that waterfowl tended to keep company with one another, and using an assortment of reeds, strips of animal hide and a dried duck head, they fashioned the first "decoys," or so the story goes.

The effectiveness of those decoys is not known, but they were, nonetheless, the forerunners of what's become one of today's fastest growing forms of art. The buying, selling, trading and actual carving of decoys generates enormous enthusiasm on the part of those who pursue the hobby. Selling prices of highly sought after decoys run well into the thousands of dollars, and it's a matter of record that one decoy recently brought more than \$300,000 at auction.

The decoy of any given species has traditionally, and out of necessity, always been a rather simplified caricature. Only in the past 20 or so years has a more sophisticated type of decoy appeared. Usually referred to as "decorative decoys," they are finely crafted, feather perfect, woodcarvings of incredible detail.

Never meant to be shot over, they grace the mantelpieces and coffee tables in living rooms, dens, offices and shooting lodges throughout the coun-



TOM DURAN, a frequent contributing **GAME NEWS** illustrator and cover artist is also—obviously—a talented carver as well. The red-tailed hawk he carved, featured on this month's cover and above, is a fine example of the high level this rapidly growing art form has attained in recent years.

try. They are usually carved from basswood, tupelo, or the more exotic jelutong. One decoy may require well over a hundred hours of painstaking effort.

Not coincidentally, closely following the development of the decorative decoy is the "decorative lifesize" bird-carving. From hummingbirds to bald eagles, carvings of this type represent an art form all their own. Complete in every detail, from claw to beak, they appear to be vibrant with life.

The range of carvings is only exceeded by the wide variation among carvers themselves. At one end of the spectrum are professional carvers who have devoted their entire lives to the study of birds, the principles of art, and the incredible number of technical

LARRY BARTH, Stahlstown, right, two-time world champion carver, works out the details of his snowy owl in clay, before beginning the actual carving process. The end result, below, garnered first place in the Ward Foundation's 1985 World Championship, Decorative Lifesize competition.



Get a bunch of carvers together, though, and before too long somebody will declare that he or she is a better carver than the next guy and, presto, the game is on. Each year more than a hundred competitions are held nationwide with honors and prize money amounting to thousands of dollars.

“Ward Show”

Generally regarded as the most prestigious is the annual World Championship Wildfowl Carving Competition, held in Ocean City, MD, over the last weekend in April. Commonly referred to as the “Ward Show,” it is sponsored by the Ward Foundation, a non-profit group dedicated to preserving the art of wildfowl carving worldwide. The Foundation is named in honor of Lem and Steve Ward, two brothers who were considered the deans of decoy carving on Maryland’s Eastern Shore in the middle of this century.

The Ward Show attracts hundreds of carvers, who enter a total well in excess of 2000 carvings. These entries include working decoys, decorative decoys, decorative lifesize bird carvings of all

skills needed to produce carvings of championship caliber. At the other extreme are hobbyists who produce maybe one or two “whittlings” in a year’s time, for their own pleasure.

In between, are countless carvers, of greater or lesser ability, who tax their talents to their limits. They come from every quarter: doctors, lawyers and probably even a few Indian chiefs. Indeed, one prize winning carver from New York is a real Indian princess.

Many are retired business people who give carving a try and end up as enthusiastic as the many teenagers who carve. Some of the finest carvers in the country are housewives and grandmothers. Most have lost a little blood for their trouble, many have pitched a half-done carving into the wood stove in disgust, but all have sat back and enjoyed the results of their labor, however modest.



ERNIE MUEHLMATT, Springfield, right, is another Pennsylvanian who ranks among today's top carvers. His bobwhite quail carving, left, and airborne terns, below, are just two of several award winning carvings he's done.



kinds and miniatures. There are levels of competition for all carvers, from novice to professional.

Tensions run highest, however, when the judging of World Class begins. Only the best need enter for at stake is a purchase award of \$20,000 and the title "Best in the World." Likewise, a purchase award of \$10,000 is made for best decorative decoy pair, \$5000 for best miniature, and \$8000 for best interpretive wood sculpture.

Pennsylvania can boast of several carvers who have been consistent winners at world championship levels. Among them are Ernie Muehlmann of Springfield, who was world champion in miniatures and lifesize in 1979 and 1984, respectively, and Larry Barth of Stahlstown, who won back-to-back world championships in the lifesize category in 1985 and 1986.

Technically speaking, the work involved in producing a top quality carving is quite complicated. In most competitions the use of natural materials such as leaves, branches or flowers is frowned upon or, in many cases, forbidden. Not to worry, the leaves, branches and flowers are all there—painstakingly

fashioned from bits of wood, metal, paper, wire and superglue.

Competition or not, birdcarvings can require a few hours of labor or several hundred. Briefly, the process begins with the choice of a subject, which necessitates research, field study and sketches just to establish the basic form and content of the finished piece. From there a clay model of the bird may be produced, with the aid of photographs, drawings and, perhaps, a mounted bird or bird study skin borrowed from a museum.

At this point, the carver gets down to issues. With a bandsaw, he will cut the basic shape from a carefully prepared block of wood, taking into consideration all the variables of grain and even the character of the wood itself.

Then the serious work begins. Some carvers choose heavy-duty motorized



J. MICHAEL McDYRE

grinding tools, while others go at it with the more traditional chisels, gouges and rasps. In some cases, a carving, usually the larger spread-wing variety, may be made up of many individually carved feathers or groups of feathers carefully assembled into the finished product.

This method is known as the "insertion" school of carving. When the carver is satisfied with the bird to this point, he or she will use a fine wood-burning tool and/or a small rotary grinding tool to give each feather its distinctive texture. Finally, the bird is painted, close attention being given to every detail in terms of color, pattern and the technical aspects of painting itself.

It's no small wonder that price tags for compositions involving several birds

such as a rising covey of quail or a group of ducks springing up from a plastic resin burst of water, can top out in excess of \$50,000 dollars.

Great Hobby

An overview of birdcarving quite naturally tends to focus on the biggest and the best. But these are only relative terms, and as a way of simply passing a long winter evening, birdcarving is a hard hobby to beat. For me, some of the most peaceful hours in memory have been spent producing the accumulation of wood chips that cover my shop floor. The few ribbons I have won will always have their special place, but far more important is the sense of accomplishment and, ultimately, the wooden bird itself.

Thoughts While Walking

In the midst of winter, I finally learned that there was in me an invincible summer.

— Albert Camus

THE POOLROOM

By Leo A. Bressler

CERTAIN PEOPLE in the small town of Hegins, back in the mid-'20s, thought of the poolroom as a den of iniquity, a place where men wasted time smoking, playing cards and shooting pool. There were rumors that even some gambling went on there.

But to some men the poolroom was a valued institution, a place where one could relax, talk, play cards, or just sit and smoke. It was a kind of club without organizational structure, and it offered escape from the routine of work and domestic life.

As no one under 16 was admitted, the place held a kind of mystique for those of us too young to enter. Thus my first visit to the poolroom many years ago, on the evening of my 16th birthday, was a rite of passage, a sort of transition from childhood to semi-adulthood. Permission was granted to visit the poolroom for the first time—with the stipulation that I was not to make a habit of going there.

Sportsmen Clientele

It came as no surprise that the poolroom clientele was largely composed of sportsmen. The owner was an avid fisherman and hunter, respected for his feats with rod and gun. Seven or eight mounted deer heads looked down from the wall behind the long food counter. All were beautiful trophies, each with a spread of 20 inches or more.

Along two walls were several racks holding a variety of rifles and shotguns. Other racks and cases held rods, reels, lines and assorted fishing paraphernalia, as well as hunting knives, ammunition and gun cleaning materials.

Woolen socks and gloves were laid out on two large tables, along with canvas coats and pants, and the red and black Woolrich clothes that had become the standard deer hunter's uni-

form—at least for those who could afford them. The whole potpourri of hunting and fishing related stock was calculated to stimulate the imagination and arouse the desires of potential sportsmen, young and old.

Another attraction of the poolroom was the long food counter, serving as the town's only restaurant. It offered free pretzels and supported a case of candy bars. Large glass jars on the counter held pickled eggs and pickled tongue, but the most popular items were cheese sandwiches and generous lengths of ring bologna, with three or four large pretzels. Drinks were confined to homemade root beer and a variety of bottled sodas.

A typical evening would find several young fellows shooting pool and 15 or more men occupying the benches and chairs around two card tables where Hassenpfeffer or pinochle was being played. There was lots of laughter, card-slapping, and loud talk in the local Pennsylvania Dutch dialect. Conversation was sometimes punctuated by such thunderous oaths as "Bei Gott" and "Verdammt Sei." Those not playing cards talked about hunting, fishing, politics and their work.

The big night at the poolroom was the one before the men left for their deer camps in Lycoming, Centre and Clinton counties. There were few deer in Pennsylvania in the '20s; just the sight of one was talked about for weeks. Those who could afford the time and money often headed north. The long trek meant driving not-very-reliable cars over even less reliable roads. Some sportsmen took a train to Williamsport or Lewistown and then hired a wagon or sleigh to make the rest of the journey.

The poolroom underwent a transformation of sorts the night before the





This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

hunters left. Instead of lounging on the benches, men walked restlessly about, talking about little else but deer hunting. For those going to camp for the first time there were lots of suggestions and advice. The places they talked about—Treaster Kettle, Slate Run, the Sinnemahoning, Bear Meadows—had a mystical sound to them. How I yearned to be one of the hunters.

Faint Hope

I did start to hunt that year, in the faint hope I might find one of the deer that had been spotted in the area. I saw none, not even a deer track, but my zest for the sport was undiminished. When the hunters returned, I was among the first to see their trophies. The poolroom had a long porch that extended out to the street, and each year hunters hung their bucks there. By the end of the season there might be as many as a dozen for people to talk about and admire. I resolved that one day I would have a buck hanging there.

The next summer I saw my first deer. My airedale, Lassie, and I had walked

halfway up Good Spring Mountain. Lassie chased anything that could run, and when she began to bark frantically I knew she had something going. Cracking brush above me signaled the arrival of a large doe bursting through the laurel. I barely had time to focus my eyes on the leaping deer before it went on down the mountain. The sight was one of my biggest thrills, and I couldn't wait to get home and tell everyone about the deer I had seen.

When the deer season finally arrived—after what seemed like an eternity—my cousin Leslie and I drove my dad's car up Sherman's Mountain and walked about a mile back into the scrub oak. The going was tough and noisy, and if any deer were in the vicinity, I'm sure we put them to flight. But eager and determined, we spent the whole day plowing through the thick brush. Our flagging spirits were revived several times by the discovery of deer tracks and especially when Leslie came upon a rubbed tree.

I wouldn't have recognized it for what it was, but Leslie had seen photographs in a magazine. We stood around the tree for a long time, wondering where the animal was and what he looked like. Just standing on the very ground where a buck had stood made our hunt a success, along with the fact that we now knew deer were on the mountain.

I spent the next four years in college, so my deer hunting was temporarily halted. I never stopped thinking about it, though, and I visited the poolroom during vacations. Things there hadn't changed much, but some of the men now talked to me as if I were an equal.

They said deer had become more plentiful and several had been shot on Sherman's and Little mountains. Some men no longer bothered to go up north. I also noticed that talk about deer hunting was no longer confined to the fabled deer counties to the north. Sherman's Mountain, Clark's Valley, Powell's Valley and other nearby areas became the locales of deer hunting conversations.



THE POOLROOM'S CLIENTELE was largely composed of sportsmen. The owner was an avid fisherman and hunter, respected for his feats with rod and gun. Seven or eight mounted deer heads looked down from the wall behind the long food counter. All were beautiful trophies, each with a spread of 20 inches or more.

By the time I finished college, in 1932, deer had become a fairly common sight in the fields near town, and spotlighting had become a popular activity. My job, however, prevented me from hunting until the last Saturday of the season.

On Friday evening I went to the poolroom to see if I could round up a hunting companion. Instead of finding one I found 19. As often happened near the end of the season, a large group was being organized to hunt in Powell's Valley, a big forested area in northern Dauphin County featuring several deep hollows and a number of high ridges. "Booey" Bixler was organizing the drive, and when I asked him whether he had room for me, he said: "Sure. You'll make the 20th man, enough to put on some good drives. You can come with me."

We were on our way long before daylight. Our plan was to cover the valley floor in the morning and to comb the

sides of several ridges in the afternoon. Ten men would drive while 10 stood, assignments to be alternated at the end of each drive. Drives were to be silent, with none of the yelling and barking commonly employed.

For the first time I felt like a real deer hunter. I was with experienced hunters in good territory. Instead of the old Krag I had been using, I was carrying a new Marlin 32 Special, recently acquired after months of saving. I even wore a ragged Woolrich coat that had belonged to my father.

I Was in the Middle

When we reached the area selected for the first drive, the captain of the drivers led us across the valley, placing men at 40- to 50-yard intervals. I was in the middle. When the captain blew his whistle, we started forward. I tried to remember all the things I had heard in the poolroom about what to do and what not to do in a drive. Carrying my

rifle across my chest, I peered carefully at the woods in front of me. Several times I thought I saw movement ahead of me, but no deer materialized.

After about 15 minutes several shots rang out ahead of me. I'll bet somebody got a buck, I thought. I had gone only a short distance when I heard the pounding of a running animal in front of me and a deer came charging directly at me. Just as I raised my rifle, I identified the deer as a doe; it swerved to my right and was gone. The suddenness of the animal's appearance and its almost spectral flight left me stunned. It took me several seconds to realize that my rifle was still shouldered.

When we got to the standers I learned that someone had, indeed, taken a snap shot at a spike buck in heavy brush. Other hunters had seen a number of does, too.

Now it was my turn to stand. The captain put me by a fallen pine that offered both a seat and concealment. Being able to see for about 50 yards in all directions, I decided this was a good

stand. Not long after the sound of the whistle, I heard rustling in the leaves to my left. The sounds kept coming closer, and I was certain a deer was approaching. It was then I discovered that my hands were trembling and sweaty. The tension was suddenly broken when a large gray squirrel bounded out of the grass and ran up a tree. No deer came my way, but several does were seen by other hunters.

We ran one more drive in the morning and then rested before climbing halfway up the ridge we were going to hunt. For the first drive I was a stander. The captain dropped me off about a quarter of the way up the ridge. "There's a small bench running along the ridge here," he said. "This ought to be a good place." Six or seven men were lined up above me.

I made myself comfortable at the foot of a large hemlock and waited for the drive to start. Although I was a bit disappointed that we hadn't killed even one deer, I was optimistic about the afternoon's prospects. After a while I almost dozed off. A short night's sleep and a lot of tough walking were taking their toll. However, the sound of the distant whistle brought me around, and I kept my eyes on the flat in front of me.

After about 20 minutes two shots rang out several hundred yards below me. Then someone yelled, "I got him! I got him!" I decided that the lucky hunter was Booe, since he was the last stander at the foot of the ridge.

Perhaps 10 minutes later two shots came from near the top of the ridge, followed by a single shot farther down the slope. And then there were three quick shots directly above me. It finally dawned on me that the deer was headed my way. I quickly jumped up, stood behind the tree, and watched in the direction of the shooting. And then there he was, leaping gracefully over a



OUR SPIRITS were revived when Leslie came upon a rubbed tree. I didn't recognize it for what it was, but Leslie had seen photographs of rubs in a magazine. Just standing on the very ground where a buck had stood made our hunt a success.

pile of brush and coming to a sudden halt about 30 yards away. As he turned his head, I could clearly see he was a legal buck.

I tried to hold the sights on his shoulder, but the bead refused to remain still. Knowing he might be gone in a second, I pressed the trigger when I thought the sights were where I wanted them. The buck leaped forward and ran past at a distance of only about 20 yards. I fired two more times before the deer disappeared in a deep gully.

For a moment or two I just stood there, disappointed and dejected. I had committed one of the unpardonable blunders of deer hunting: missing an easy, standing broadside shot. Finally I decided to walk down to the gully. I was only about halfway there when I saw the buck lying motionless next to a large boulder at the bottom of the gully. Although there was no one to address, I yelled, "I got him! I got him! I got my buck!"

He wasn't a large deer, a 4-pointer, but to me he was the grandest deer in the world. For a few minutes I just walked around him, looking at him from every angle. I discovered that only one of my shots had connected. Several of the other standers came along and helped me field dress the animal, no

doubt hating to watch the mess I would make of it.

I had been right about Booeey getting his deer. He shot a large 8-pointer. On the way home Booeey remarked about the strange coincidence that the only two deer killed by 20 men belonged to us fellow travellers. Anyway, I hoped there would be people in the streets of Hegins to see the two deer strapped to the front fenders of Booeey's Ford.

When we got to the poolroom, I went inside to get a piece of rope and then hung my deer along with the ones already there. I made an extra trip back to the poolroom after supper to take another look. *My* buck was on display at the poolroom.

The poolroom is gone now, as are the owner and many of the old-timers who spent their evenings there. Most sportsmen today hunt closer to town, and deer are no longer hung in front of the poolroom building. The memorable pre-hunt gatherings are a thing of the past.

Although I haven't lived in Hegins for many years, I still have many good memories of my youth there. I think fondly of the poolroom and those who frequented it. Both, I am certain, formed the genesis of my lifelong love of deer hunting. For this I am grateful.

WCO JOE WIKER has been awarded the Shikar Safari Club's "1990 Conservation Officer of the Year Award." Working in the State College district of Centre County since 1960, Joe has developed an exceptional all-around rapport with fellow law enforcement officers, sportsmen and other members of the public, particularly rural landowners. Joe has also earned a reputation of being a firm and fair law enforcement officer, one with a special ability to blend law enforcement with public relations.





FOLLOW-UP TRAPPING can improve a furtaker's success and teach him a lot about his quarry and his craft. Many trappers, after pulling their sets, don't go back to that particular line until the next season. By retrapping an area, however, the knowledgeable furtaker can increase his harvest.

Follow-Up Trapping

By Joe Kosack
PGC Information Specialist

FOLLOW-UP trapping, or retrapping an area, should be a regular procedure on every trapline because it frequently leads to additional fur. However, many trappers do not use this strategy over the course of a season.

Most trappers incorporate follow-up efforts on their traplines from one season to the next, returning to a certain area to trap it every year. The duplication usually stems from a trapper's good fortune in the preceding season. For instance, if you took three raccoons in a week from a culvert under a highway last year, you surely would trap the location next season. But why wait until next year? There's a good chance to double your take from the location by resetting it later in the same season.

Trappers prematurely pull good sets for several reasons. Sometimes they're worried about taking too many furbearers from a specific area and not leaving enough animals to ensure a good population for the following season. Other times trappers pull sets simply because they aren't producing at the time. And, trappers may have other plans, going deer or small game hunting, for instance, or on a vacation. The bottom line is that trappers often pull good sets too early, costing them a chance to take more furs.

One of the most confusing aspects of trapping is determining how many furbearers live in a certain area and what the take will be. There are steps even beginners can take to solve the prob-

PREDATORY FURBEARERS such as raccoons and foxes change their haunts and habits as their food sources change or move. An area that failed to produce furs at the beginning of a season often improves later in the trapping year.

lem. For instance, studying the biology of the furbearers you trap will teach you where to look for animal sign, an important trapline yield indicator. In addition, you can do some follow-up scouting after you've pulled your traps. Through these efforts, the trapper can determine whether there are more furbearers in the area than he originally thought and whether it's worth his time to retrap.

There are many reasons why a trapline in a certain area won't produce at one point in time but will at another. For example, the area's population of resident raccoons or foxes may be feeding where seasonal foods such as field corn, berries, frost-killed grasshoppers or mast is available. Sets made away from such feeding locations have little chance of success, but they may produce later when food sources change. Weather conditions, illness, predators and increased human activity also influence furbearer movements.

On some occasions, traplines fail to produce even when furbearers are in the area, especially when the sets were made by a novice trapper. Inexperienced trappers may often miss key set locations and, hence, catch opportunities.

In light of this, it's important for trappers to conduct follow-up investigations of not only their own trapping territories, but also those of their competition. It will require more of your time, but the extra work often leads to a larger take of fur.

It's also an inspiration for a trapper to take animals from an area he had almost written off until the following season because he didn't expect to harvest the additional fur. Successful follow-up trapping often compels a trapper to look more closely and objectively at his furtaking practices and to push harder when his frustrated competitors are pulling their traps.



I began follow-up trapping after I made a discovery while hunting a section of a fox trapline I had set about two months earlier. As I looked over one of my old dirthole locations, I spotted fresh fox droppings alongside the backstop. That finding prompted me to check other set locations on the trapline. Of the sets I reviewed, I found droppings or smelled fresh urine at half of them. It appeared I had missed some foxes, or they began working that section of the trapline after I pulled out.

I learned two things about trapping from that discovery. First, I found that the odors of oils and musks used in lures emanate from a dirthole for months. In addition, I began to understand that trapping foxes is a hit-or-miss proposition when sets aren't made in an area the animals are using or along a frequently used travelway.

I was beginning to understand that successful trapping hinges on setting areas that are being used by furbearers for hunting, denning or feeding. From that point on, I began to look for methods to determine where the animals were most active.

Prior to the season, I would make sifted dirt circles and squirt a shot of fish oil in the center. After a few days,

I'd check the test sets to see if any furbearers were attracted to them.

During season, I began to do follow-up checks of old sets to see if furbearers were visiting them. The in-season checks were usually in areas I had missed a couple animals or where I figured competitors didn't trap properly.

One area where follow-up investigations are almost always warranted is at a funnel, a place where furbearers are forced to travel through or on a narrow passageway. Some good examples of funnels are culverts under highways, railroad beds flanked on both sides by swamp, and ground occasionally found between bridge abutments and water.

At these locations there is almost no limit to the number of furbearers you might take. Resident animals and those that are just passing through use funnels to avoid discomfort, additional effort and encounters with people and automobiles.

Checking the areas set by inexperienced trappers is also a good idea because sets are often placed too far from furbearer travelways and use poor attractors. Also, inexperienced trappers often become disillusioned and pull their traps early.

When you check an area that has already been trapped, review the old sets. See if the trapper took any furbearers—look for the circular pattern of ripped-up debris or dirt created by a trapped animal. If you find only a few patterns or none, continue your probe by concentrating on locations that should attract furbearers. Look for droppings and tracks at trail intersections, along sandy shorelines and near large hollow trees and rock piles. Scout around food sources—edges of standing corn, weed fields and grapevine thickets, beneath apple trees—for signs of recent animal activity. If you find enough sign to justify making sets, go get your gear.

When retrapping an area, whether it's one of yours or a competitor's, it's best to use new sets and different attractors. Furbearers roaming the area may steer clear of the smells and sets

trappers previously used. For instance, if you're trapping raccoons, use blind sets on travelways and mouse hole-sized pockets stuffed with crayfish, grape paste bait or mussels.

If you're trying to take foxes in territory that was trapped earlier, try grass tuft post sets sprayed with urine squeezed from a fox's bladder. If you make this set, camouflage the surface of the trap bed so it blends with the surrounding ground.

Offering different scents and sets is important in follow-up efforts because you may be dealing with difficult-to-catch quarry. This isn't a hard and fast rule, though. Some exceptions are sets where the bait was taken after the trap was pulled or blind set locations receiving renewed furbearer activity.

When considering areas for follow-up trapping, concentrate first on locations bordered by big tracts of land that cannot be trapped or hunted for furbearers. Furbearers may be crossing over the property line into territory you can trap. Early season efforts by trappers in such areas are not always productive because the furbearers may still be feeding at food sources on the refuge. But as fall progresses, and the food supply on the sanctuary wanes from crop harvests, frosts and animal consumption, furbearers will begin to canvass border areas for food.

A scouting trip through the borderland will let you know for sure if the animals have started to move into it. If they have, then you ought to be able to take them with standard sets and baits.

Follow-up trapping can be rewarding. It is an especially useful strategy for schoolboy trappers and others limited to trapping one certain region. But it takes some practice and experimenting to become proficient; don't expect huge results immediately.

Eventually, however, this tactic will provide great trapping opportunities. From that point on you'll see that there's more to trapping than hitting as much untapped territory as possible in a season, and you'll have a new perspective on the sport.



GETTING A YOUNG DOG to successfully retrieve a downed game bird is the result of a structured training program—it's no accident. There are a number of steps to be taken in a pup's training, and there are a lot of pitfalls as well. According to a champion trainer, keeping the process fun for both you and the dog is a good start.

Getting the Most From Your Hunting Dog

Natural Retrieving

By John W. McGonigle

A HUNTING DOG returning with a game bird cradled gently in its mouth is the most beautiful sight in the world to a dog man. Sure, seeing a solid point from one of the pointing breeds is a thing of beauty, and being a springer fancier, I find a big rooster pushed into flight by a spaniel a most exhilarating sight. But having a dog retrieving downed game is the culmination of everything you have trained for. It's the icing on the cake.

Vic D'Annunzio, West Chester, has been working with hunting dogs since he was a kid of nine. For the past 20 years he has been at it quite seriously, and in the last 10 years he has devoted his time entirely to retrievers. Vic is an avid waterfowler, has done some guid-

ing, and is now actively training hunting dogs for the field, for field trialing, and for the relatively new AKC retriever testing program.

Prior to working retrievers, D'Annunzio trained and hunted both coonhounds and pointing dogs, making three champion pointers and three Nite Champion coonhounds. The advice he gives in this article works equally well for the pointing and flushing dogs as well as retrievers.

D'Annunzio's philosophy of training dogs is simple (not to be mistaken with easy). "Keep it fun, for both you and the dog," D'Annunzio says. "When the fun is over, it's time to do something different."

Although most retriever breeds have



good retrieving instincts, most owners are concerned whether their dog has the right stuff. "Watch the pup to see if he likes to carry things around," D'Annunzio says. "That's the first sign that your pup has retrieving instinct."

While many successful dog trainers and writers advocate using a glove or a tied handkerchief to begin a puppy's retrieving lessons, D'Annunzio prefers to start puppies with a puppy retrieving dummy. It's still fun, and since the dummy is an object continually used throughout the dog's training, D'Annunzio avoids correction problems. He can also more easily instill into the puppy that there is an element of work involved. Do not get too serious with the work, though; there is plenty of time for that later.

A STANDING PERSON can present an imposing image to a young dog, and this can lead to a dog's reluctance to return the whole way. Try kneeling to present a less threatening picture. In some cases, it may be necessary to sit or lie on the ground to get the dog to come all the way back with the retrieve. Some puppies are also uncomfortable with direct eye contact, and the trainer may have to avoid staring directly at the dog as it returns with the dummy.



Even puppies with good retrieving instincts sometimes like to run off with the training dummy. It becomes great fun but can quickly develop into a problem very difficult to solve.

Many knowledgeable trainers like to start their puppies retrieving in a very confined space—spaniel owners consider this technique to be "gospel." A hallway with all the doors closed, a small room, or even a garage or basement can serve well. Some people, myself included, erect a long, narrow, fenced-in area for retrieving training. Retrieving in an enclosed area helps establish a pattern of retrieving to hand that will carry over as training progresses.

D'Annunzio starts with canvas training dummies, but after a while he uses as many different types of dummy as possible. "This encourages the idea of picking up anything that the dog is sent for," D'Annunzio says. Being selective



IT'S VERY IMPORTANT to begin retriever training in an enclosed area; this helps establish a pattern of retrieving to hand. A good method to get the puppy to bring back the dummy is to run slowly away from the dog, calling its name. The young dog is almost sure to follow.

about what it will retrieve is undesirable in a gun dog, and early training can help preclude that.

D'Annunzio emphasizes the importance of making retrieving fun. "Do not make the puppy sit first and wait for the retrieve," he says. "After he is showing good pursuit and drive, then concern yourself with making him wait before being sent." Swing the dummy around, tease the puppy and then throw the dummy; he'll follow. Make the initial retrieves short for a young puppy. A long throw is difficult to follow with his eyes, and he'll quickly lose interest.

Some puppies go out to the dummy and pick it up, but are reluctant to return with it. Try kneeling to present a less imposing picture; even sit or lie down if necessary. Another trick is to run slowly away from him, calling his name as you go. He is almost sure to follow.

It is not uncommon for a puppy to return nearly all the way with the dummy but then stop a few steps shy of the handler. If running away does not solve the problem, try not staring at the

dog, avoiding all eye contact because young dogs are sometimes uncomfortable with direct eye contact.

"Another way to get the puppy returning enthusiastically," D'Annunzio says, "is to tie him up and make him watch another dog retrieve." Frequently, jealousy will do the trick. Finally, and this method has pitfalls, "Send an older dog for the puppy's retrieve if the youngster isn't running after the dummy enthusiastically," D'Annunzio suggests. It can backfire, though, and leave you with a puppy that isn't interested in retrieving.

Wrong!

People often make a mistake in the next step of the dog's training. As soon as the puppy returns with the dummy, they snatch it quickly from his mouth. Wrong!

As you are already stooping or kneeling (you are, aren't you?), just pet and praise the puppy when he brings the dummy to you. He's just done something wonderful—tell him so. Now is the time for some praise, but don't



pound him. He may get excited and drop the dummy. Instead, stroke him gently and tell him how great he is. There is plenty of time to get the dummy. A puppy that has the dummy yanked out of his mouth as soon as he returns might just decide that it's not much fun coming back.

After a bit of praise, reach down and take the dummy, saying "give" or "out." If the pup is reluctant to part with his prize, blow briskly into his nose and he'll most likely release the dummy. Praise him again. If he still holds on, push the dummy deeper into his mouth, rolling the dummy as you do so. If need be, press the puppy's lips



D'ANNUNZIO RECOMMENDS beginning a pup's training with canvas dummies and progressing to as many different types of dummies as possible. This will prevent a dog from being selective in what it retrieves.

against his teeth to make him release it. If none of those methods make the puppy give up the dummy, reach back along his flank, and lift just in front of the juncture where his back legs meets the body. He *will* drop the dummy.

Spaniel people are fanatical about giving their puppies only a few retrieves at a time. They are concerned that the pup will become bored, and with some dogs this can be the case. D'Annunzio, on the other hand, likes to give young dogs a lot of retrieves, looking for telltale signs of boredom, such as a dropped tail, running slowly for the dummy or a slow retrieve. Remember, gun dogs are not made overnight.

One of the greatest problems we have as dog trainers is impatience. One of the top retriever trainers of all time, Charles Morgan, writes in his book *Charles Morgan on Retrievers*, "When you think you have it right, go back and work on it for another month."

So far we have not given a command for going on the retrieve: we just tossed the dummy and let the puppy chase it. After the initial retrieving attempts, give the command of your choice as you throw the dummy.

While many people use the command "fetch," many trainers prefer to use the dog's name as the command to retrieve. Once your dog is steady, that is, sits and waits for the command before retrieving, it is necessary to use a one word command. Using the dog's name eliminates more than one dog going for the retrieve in the case of several dogs hunting together. Two dogs reaching the bird at the same time can result in one heck of a fight.

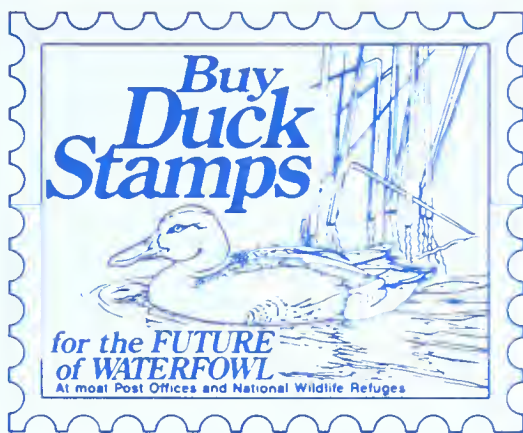
When your young dog is retrieving

IT'S NOT UNUSUAL for a puppy to be reluctant to give up its prize. Blowing briskly into its nose, pushing the dummy deeper into its mouth or pressing the dog's lips against its teeth can do the trick.

readily to hand, in and out of a confined area, and going on ever longer retrieves, make sure you vary the length of the retrieves. A dog being sent on retrieves of the same length (such as in a fenced-in yard) quickly gets programmed to that length retrieve. Sent for a longer retrieve in the field, he will consistently mark, or search, short.

At this point, the introduction of gunfire, the use of Retrieve-R-Trainers and other distractions should be introduced. And then later, after proper introduction to birds, your dog should make a nice, easy transition and retrieve birds to hand as readily as the dummy. While proper introduction to birds will be covered in detail later, one piece of advice: Use a clean, frozen pigeon, possibly one saved from a previous training session.

For most hunters this natural method of teaching retrieving will suffice. A dog



with good instinct and a desire to please will make the majority of retrieves it is sent on, provided it sees the fall of the bird. But for blind retrieves, field trials and certain weather extremes, natural retrieving may not be enough. Force training may be the answer, and that will be the focus of another article.

Books in Brief...

(Order from publisher, not from Game Commission)

Shotgunning Trends in Transition, by Don Zutz, Wolfe Publishing Co., 6471 Airport Dr., Prescott, AZ 86301, 320 pp., hardbound, \$29.50, plus \$2 shipping and handling. The author is an expert in the shotgunning field and writes scattergun articles for many outdoor periodicals. His book takes a look at the modern art of shotgun shooting and the changes that have occurred in the latter half of this century. From field gunning to competition shooting, Zutz traces developments brought about by changes in shooters' tastes and hunting opportunities, and manufacturers' research efforts. The author has strong opinions on the sport and the equipment used in it, and while the reader may not always agree with Zutz's conclusions, this book is a must for the library of any serious shotgunner.

Gun Trader's Guide, 14th edition, Stoeger Publishing Company, 55 Ruta Court, South Hackensack, NJ 07606, 512 pp., paperbound, \$16.95. Revised by John E. Traister, this edition includes a number of handgun makers not listed in the guide before and also now lists Kimber firearms. The "Guide" is a valuable reference for hunters, shooters and collectors, giving them an idea of how much firearms are worth. Values are based on guns in "excellent" condition—as defined by National Rifle Association standards—and estimates of their worth are given for each model variation.

Waterfowl Hunting, National Rifle Association. For order information, call toll-free (800) 336-7402, 278 pp., paperbound, \$5. Part of the NRA Hunter Skills Series, the waterfowl hunting book is packed with everything the beginner needs to know to get started hunting ducks and geese. And there are plenty of tips for the more experienced waterfowler as well. Chapters cover subjects from gun and ammunition selection, through hunting techniques and safe and ethical hunting practices. The back of the book contains a color waterfowl identification guide, complete with sketches of birds in flight to aid species identification. Other books in the skills series include wild turkey, white-tailed deer, Western big game and muzzleloader hunting.

The Ranger

By Paul A. Matthews

GROUSE ALWAYS startle me, and this one was no exception. It boiled up from the fern and winter-green, lifting sharply from the narrow floor of the gorge, streaking toward the laurel and scrub hemlock on the far side. It banked and swerved and, just before it passed from sight—just as I got a glimpse of it over the bead sight—I closed both eyes and yanked the trigger. What I wouldn't give to turn the calendar back almost 60 years and be able to take that shot all over again.

I just had to have a shotgun back then. Every hunter worthy of the name carried one. And even though I'd used the little Remington No. 4 single-shot and had taken a lot of game with it, I somehow felt like I was on the outside looking in. That was back in the days when the fall and winter editions of the Sears, Roebuck catalog prominently displayed several pages of fine shotguns and rifles; back in the days honest law-abiding citizens could sit down and write:

Dear Mr. Sears or Roebuck:

Here is my \$10.95. Please send me the single-shot Ranger shotgun shown on page 687 of your 1933 catalog. Please hurry. Hunting season opens next Saturday.

They hurried, and the following Friday when I got home from school there was a heavy oblong box lying across the supper table. Ma was standing in the corner by the sink, one eye on the potato she was peeling and the other eye on me.

To this day I can feel the rush of warmth as I tore at the wrappings. Within seconds I held it in my hands, a 30-inch barrel, full choke, 12-gauge single-shot shotgun with the word "Ranger" stamped in big letters along the side of the breech. I swung it to my shoulder, my thumb curled across the

hammer as I pretended to cock it, and then said "boom" as the imaginary rabbit on the far wall turned somersaults. From the corner of my eye I saw Ma turn away, and for an instant I saw the smile on her face.

It took every penny I'd earned that summer to buy the shotgun, and it wasn't until I sat down at the supper table an hour later and Ma put a box of shotgun shells in front of me that I realized I hadn't the money for ammunition. Where she got the money I'll never know, because even at \$1.15 a box, it was more than we could afford back in those days.

"You'll have to use them carefully," she said. "I can't buy any more."

Did you ever try to stretch 25 shotgun shells over a whole hunting season? With my little 32 Remington, a box of 50 cartridges lasted the whole season with some left over. But I wasn't shooting at flying birds or running rabbits, either. With the rifle, I took my game sitting or else let it pass by.

When I left the house the next morning with my new Ranger held at high port, I promised myself that I'd take only good solid shots. I just had to show Ma how much better I could do with the shotgun.

I was still within sight of the house when the first rabbit bolted from the security of a weed thicket and streaked toward a briar patch 50 yards away. The shotgun flew to my shoulder and a withering blast blew a dishpan-size hole through timothy and briars six feet to the left and a dozen behind the fleeing cottontail. I heard myself say, "Holy mackerel!" as I ejected the still smoking shell and chambered a fresh one.

Then reality sank in. I had missed. A wide open shot and I had missed. In fact, I couldn't even remember aiming at the rabbit—just pulling up and shooting, hoping I'd hit what I was





OVER THE YEARS I put a lot of shells through that little shotgun, and I eventually learned to let the game out a bit and to lead it properly. My mother never asked how many shells I fired on that first day I hunted with the Ranger.

looking at. Next time, I promised, would be different.

Any kid big enough to heft a 12 gauge shotgun can take his limit of squirrels in a short time. I saw one run around the base of a large oak, and I knew he'd be clinging to the far side. So I sat down and waited, with my back to a beechnut and my elbows propped against my knees, pointing the gun where I expected the squirrel to appear.

Sure enough, after six or eight minutes the squirrel edged his way into view. When I could see all of its head, I covered it with the bead and pressed the trigger. It was easy. I shot three more squirrels that morning just to prove it.

Fast-Moving Game

But somehow, using the shotgun on squirrels took something away from the hunt. Rifles are for squirrels. Shotguns are for rabbits, grouse, pheasants and other fast-moving game. So after the fourth squirrel I went back into the fields and along the edge of the woods. Maybe, I thought, I won't miss the next one now that I've had a little practice.

Back in those days, a man—or boy—didn't really need a dog to get game. In the '30s a hunter could put up plenty of game just by walking old brush lots and overgrown fields. So it really should have been no surprise to me when a ringneck with a yard-long tail got up from the brush around an old founda-

tion and, amid a burst of cackles and flaming colors, made for places yonder.

When the smoke cleared and the last echoes of the shot faded, I stood there with the shotgun butt under my armpit and watched the bird sail from view. I hadn't even completely shouldered the gun before pulling the trigger. And I'd already used six shotgun shells.

Right about then I was down in the dumps. I'd never felt so low, especially on the first day of hunting season. As I sat there on a log, wolfing the bean sandwiches that had been squeezed to a soggy mass in my jacket pockets, I tried to analyze what was wrong. Oh, I knew what was wrong, but I wasn't about to admit it. No teenage kid wants to admit he's afraid of a 12-gauge shotgun that rattles his frame all the way from his eyeballs to his toenails every time it fires. Nor does he want to admit that because he's afraid of it, he can't keep both eyes open long enough to see where the gun is pointed.

But I had to do something to change the situation. I had to take home game with the shotgun that I ordinarily wouldn't have killed with the rifle. I had to prove to Ma that the shotgun was worth the price.

I picked up the empty shell I'd fired at the ringneck and stuffed it in the chamber. I searched around, poking in the debris of the old house foundation, until I found a rusted tin can.

Then I practiced. It wasn't like trap or skeet shooting, nor was it like the real thing on birds. I'd throw the can then whip the shotgun to my shoulder, earing the hammer to full cock and dry firing the gun just as the can seemed to settle on the front bead. Whether I was doing it right or not, I didn't know, but after about 15 minutes of practice I went back to hunting.

Tin cans aren't rabbits. They don't look alike and they don't act alike. A

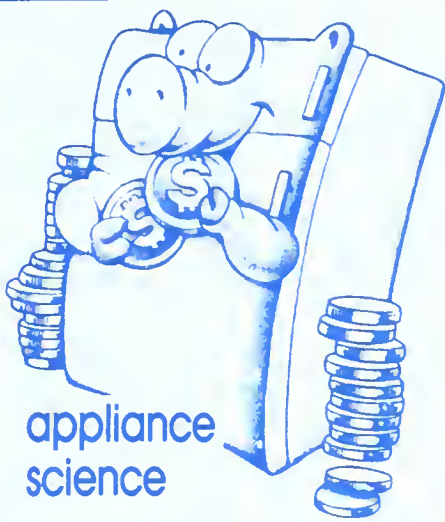
cottontail came out from under a scrub pine when I kicked at it, but instead of letting the rabbit get out a bit, and thus giving my shot a chance to spread, I blew a six-inch hole in the dirt two feet behind it just as it made a sharp turn to the left. It zigged when I thought it was going to zag.

That smarted. It hurt. And after I missed another rabbit a half-hour later, I headed for Mallory Run hoping for a grouse. How I ever figured I'd get a grouse when I couldn't hit a rabbit, I'll never know. Maybe it was because the grouse, like the tin can, would be in the air.

Working my way downhill through the thornapples and scrub pine that grew below the old lime rocks, I flushed three or four birds and another rabbit. But in each case, the grouse was out of sight long before the little Ranger got to my shoulder. I was almost grateful, because I knew I would have missed them all. It was a feeling I'd never experienced when I carried the rifle.

On the little strip of flat land at the bottom of the gorge, a late afternoon chill was beginning to set in. Shrouded with hemlocks and oaks and beeches, Mallory Run never felt the full force of the sun, and on the narrow flats along its course shade plants grew—fern, wild ginger and wintergreen—bunches of ideal grouse cover.


I was just above the place we called the Second Falls when a bird flushed, rising sharply in front of me and then sailing in a wide sweeping curve off to my left. It was going to be my last shot of the day, my ninth shotgun shell. The little Ranger came up, and as the butt snuggled against my shoulder I heard the hammer click into full cock. I swung to the left, finger on the trigger ready to go, but I had gone past the bird. I brought the muzzle back just as the grouse straightened, and for an instant it seemed the brown flurry of feathers was poised mid-air atop the




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bead sight. I couldn't help it. I closed both eyes and yanked the trigger.

When I opened my eyes again, there were feathers drifting in the air—soft boat-shape feathers that made little zig-zags and spirals as they drifted downward. I had done it. I had finally taken a moving target. I had proven the Ranger's worth.

Over the years I put a lot of shells through that little shotgun, and I finally learned to let the game get out a bit and to lead it properly. Ma never asked me how many shells I fired that day; she simply stuffed the grouse and put it in the old Glenwood range.

The Rest of the Story

Wildlife and Agriculture

By Bernard J. Schmader

WCO, Union County



SOME AGRICULTURAL PERIODICALS leave the impression that wildlife and farming interests are constantly at odds. But that's not the case. Wildlife damage complaints are received from a small percentage of the farming community. In fact, it has been my experience over many years that the vast majority of farmers welcome the variety of wildlife that frequents their fields and woodlots. Moreover, many of these people express their concerns for wildlife, and even play an active role in wildlife management by providing and improving wildlife conditions on their own properties.

"Crop damage" articles seem to point out the perceived negative aspects—or, perhaps, effects—of wildlife and promote eradication through a variety of methods including wholesale slaughter. Never do such short-sighted articles mention the positive aspects of the wildlife sharing a farmer's land. The benefits include recreational opportunities from hunting and trapping to bird watching and dog training.

And there is much to be said for the lifted spirits gained from the melody of singing birds, enjoyed daily by farm residents and their neighbors. Sights like a burnished-red doe standing belly deep in green clover flanked by a pair of spotted fawns, or a buck in a velvety crown of growing antlers also enhance the quality of rural life.

A MULTITUDE OF WILDLIFE shares a farmer's property, and many people appreciate their land as much for the fauna it boasts as for the crops that grow on it. The agency sponsors a number of programs that help landowners increase the value of their properties to wildlife and, ultimately, to themselves.

Pennsylvania Game Commission programs for farmers and other landowners include:

Safety Zone Program
Farm-Game Program
Forest-Game Program

(These three programs offer GAME NEWS, seedlings, seed mix, border cutting, safety zone and other posters. Also, extra legal protection under provisions of Pennsylvania's Game and Wildlife Code.)

Streambank Fencing Program
Deer Fence Program
Bear Fence Program

Game and Wildlife Code provisions allowing the destruction at any time of wildlife causing damage
No licensing requirement to hunt or trap their land or adjoining farms for the farmer, his family or his regular hired help

Many authors neglect to mention that the rural resident has in his yard what quite a few city dwellers spend time, effort and money for the chance to enjoy. And, when it comes time to sell the "back forty" or the farm itself, how many farmers fail to mention the good hunting their lands can provide?



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Wildlife is an asset of the land, and all you have to do is ask any farmer who has foresight enough to see beyond his pocketbook. Some farmers get excited about the wildlife found on their farms, whether it's standing in their crops or on their ridges. To put it in one fellow's words, "Attracting wildlife intrigues the heck out of me."

I know farmers who, along with their families, are as proud of the wildlife that live on their lands as they are the crops or stock they produce. As one farmer said to me, "This wildlife was here long before I

was; and I sure hope it's around here long after I'm gone."

Many landowners encourage and manage wildlife on their properties by border cutting along the edges of fields, by building brush piles rather than burning, and by planting food and cover producing vegetation in appropriate places. And they often do it all with little expenditure of time or money. As one local dairyman put it, "I'd rather do those things than milk." I've even had farmers ask me to release on their land any raccoons, bears or other wildlife I might trap.

Apparently, the majority of farmers know—and so should everyone else—farming is a complex art that's more than just soil or profits and losses. Farming represents a stewardship of the land—including the wildlife—that have, for millennia, served to build the thin layer of humus and minerals which yields the necessities of life not only for the consumer but for the farmer as well.

All species of wildlife should command the consideration, concern and respect of all people, including the minority of the agricultural community who would wage a slanderous war against wildlife's existence on Pennsylvania's agricultural landscape.

Farmers and other landowners interested in helping wildlife should call the Game Commission for suggestions and technical assistance. We all need to work together to provide healthy populations of wildlife species. Wildlife builds and maintains the necessary natural relationships vital to the long-term existence of good soil and a good earth.

Upcoming Lectures at Middle Creek and Pymatuning

Again this year the Game Commission is sponsoring a series of wildlife and outdoor related lectures at the Middle Creek Wildlife Management Area, on SGL 46 near Kleinfeltersville in Lebanon County, and at the Pymatuning Wildlife Management Area, on SGL 214 near Linesville, Crawford County. Upcoming lectures at Middle Creek include "Springtime Wild Turkeys," by PGC Biologist Arnold Hayden, April 3 & 4; and "Where to Find Pennsylvania's Birds," by PGC Biologist Dan Brauning, April 17 & 18. Both programs will be held in the Visitors Center and start at 7:30 p.m. At the Pymatuning Visitors Center, PGC Biologist Gary Alt will present "Black Bears in Pennsylvania" at 2 p.m. on April 6; and Jim Hill, founder of the Purple Martin Conservation Association, will present a slide program on purple martins at 2 p.m. on April 13. Admission is free to all programs.



JACKSON HOLE, WY, is the site of Safari Club International's American Wilderness Leadership School. The school instructs teachers and high school students on the finer points of environmental and natural resource management.

**Teachers, Here's an Opportunity
For an Exciting . . .**

Wyoming Adventure

By Sal and Bernadette Pitera

AS THE SMALL plane began its descent toward the mountains the misted topography grew larger and more emerald with each second. A short time later we were driving on the streets of Jackson, Wyoming, then onto miles of open highway and, in the final stretch, a rugged piece of dirt road.

At the end of the trail, in a grove of cottonwoods and evergreens, stood our destination—the Hoback Canyon of Jackson Hole. This idyllic area has seen many dreams come and go, from homesteading early in the century to dude ranching and outfitting later. The greatest dream of them all, though, is being fulfilled today. Since 1982, the site has been home to Safari Club International's American Wilderness Leader-

ship School (AWLS), a place where teachers and high school students can come and learn about the environment and natural resource management. We were here to learn firsthand just exactly what this facility offers.

On our wet and chilly first morning, we picked our way to breakfast from one of the original dude cabins and on through the sodden underbrush to a wooden foot bridge. A short distance away a snowshoe hare continued to feed while watching us cautiously. We were here not just to do a story, but to learn for ourselves the need for this program. Little did we realize how caught up we would become in the intensity of the learning environment.

Don Brown, SCI Education Director,

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GAME NEWS

For a Friend . . .

is justifiably proud of the school and its endeavors. He is an affable, likeable Midwesterner with an extraordinary sense of humor. Don is responsible for the smooth operation of the school and the curriculum, which includes the Wyoming Hunter Safety Course.

"We're proud that of all the people who have gone through our course, none has been involved in an accident. Of course, that's because Dad's an old grouch," he kids.

"Dad," in this case, is Ells Brown, who takes his instruction of the shooting sports very seriously. He instills confidence in his students, both in the field and in the classroom.

"We aren't going to teach you to be expert shooters, but we're certainly going to try and teach you shooting safety practices," Ells points out. "We want you to take afield what you learn here. We can't follow you and load your gun for you.

"A fellow back home went rabbit hunting and was found hanging on the fence with the rabbit. He was dead; so was the rabbit. Apparently, he was

crawling over the fence but had forgotten to unload his gun." Later, to an attentive audience, Ells demonstrates the safe way to cross through a wire fence.

In the intensive outdoor psychology and wildlife management program, students and teachers who have come to AWLS from around the country become like sponges, absorbing and sharing ideas.

"Picture our earth for a moment, in the guise of an apple," says Dr. Thomas 'Doc' Rillo, Outdoor Educator at Indiana University. "Cut away two-thirds of it to represent the areas of water. Of the remaining one-third, cut away a third for the mountains and another for the deserts. This leaves us with a *third of one-third*. Half of this is underground, so cut away the bottom half. How are we handling that which remains to us, the small mantle that supports our entire civilization? We're eating it!"

While proceeding to eat the apple, Doc talked about improper conduct as the product of a person's environmental experiences—or lack of them. He stressed the need for social studies rather than addressing conservation from just the scientific approach. "Involve the communities, the churches," he said. "Parachute ecology to teach sensitivity." He talked of becoming aware in a more fundamental way, studying nature with its form, symmetry, rhythm and motion. "Using nature is not copying, it's focusing."

The practical side—succession and animal adaptation, for example, was covered by Professor Eugene Decker of Colorado State University. Throughout the course one thought continued to gain momentum: We came to realize that if our economic system had been based on conservation instead of consumption, we would certainly be living in a different world today.

Many other instructors contribute to the experience. Forest Buchanan, the

INCLUDED in the itinerary was a white-water rafting trip on the famous Snake River. Backpacking, wilderness survival, fishing and camping were among the subjects that brought home the outdoor experience.



THE WYOMING HUNTER-ED course is a part of the wilderness leadership school's curriculum, as are the shooting sports. The school strives to teach safe shooting practices.

wonderful gentle Scotsman, knows the common and Latin name of every tree, shrub and wildflower in this Rocky Mountain canyon. Robin Smith, with her indefatigable enthusiasm, was program director. Tom Barham, with his interpretive games, taught the first step in the process of outdoor survival and group trust. (Try falling backwards from the edge of a high porch into 10 pairs of waiting arms, with the complete confidence they will catch you.)

And the students. They all worked hard in the classroom and relished their time outdoors. Whether utilizing their newly discovered aptitude with a compass, or tying flies for the backpack trip that was to come, they were eager and receptive. We became involved in the shooting sports, fished, camped in Yellowstone, backpacked, and white-water rafted on the Snake River.

We learned and we saw—moose, elk, deer, buffalo, beaver, antelope, coyote and eagles. We heard the rumble of the giant “mud pots” at Yellowstone and stood near a buffalo carcass, seasoned and awaiting the appetite of the grizzly



spotted not too far away. The park supervisor had taken us off the “beaten track” and into the Hayden Valley. There the giant thermal pools raged, and through the mists, buffalo grazed in the distance.

We returned from our intensive 10 days with a couple of Wyoming Hunter Safety Certificates and a huge respect for the efforts of SCI. One of the mountains that surround the valley has a large inclusion near its crest which, at the proper angle, has the look of an open door. In fact, it is called the “Open Door Mountain.” We couldn’t help but think of this as a proper invitation. The door is open and the rewards are great.

The Lehigh Valley Chapter of Safari Club international will send three lucky Pennsylvania school teachers for a 10-day session at the American Wilderness Leadership School, where they will learn outdoor education skills and techniques. Winners also may receive two graduate credit hours from Indiana University.

Contest rules are simple. Any classroom teacher is eligible. If you qualify and are interested, send a 500-word narrative, on school letterhead, explaining how the experience and knowledge gained through participation in the AWLS will contribute to your educational and/or career objectives. Include with the entry the grade level you teach, your first three choices for workshop dates, and your address and phone number.

Dates for this year’s sessions are June 17–26, June 27–July 6, July 24–August 2, August 3–12, and August 14–23.

The Lehigh Valley Chapter will pay all expenses, including plane fare. The only exception is that fees for graduate credits are the responsibility of the teacher.

Entries should be mailed to American Wilderness Leadership School, Pennsylvania Game Commission, Bureau of Information & Education, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Entries must be received by April 15, 1991. Successful applicants will be notified no later than May 1.



SO MANY TIMES I've heard the words, "I'll be at the stump, Mom, if you need me." I knew where the stump was and that it meant enjoying the sweet, nutty smell of the woods while listening for the bark of a gray squirrel on a peaceful afternoon or evening. Special places often bring back childhood memories of someone dear to us.

A Special Place

By N.J. Anderson

ASPECIAL PLACE is not always one of personal selection, but rather one that brings back childhood memories of someone dear to us. My special place is "the stump" where my sons spent hours just sitting. I was privileged to be invited to the stump and was told why it was so special—and that the secret had to stay within a small circle. I listened to the excitement in their voices when they told tales of how a difficult shot had brought a big gray squirrel to its end.

To reach the stump you must travel down the road a short distance and turn off on an old logging road which goes back through the thick woods to an

area that has been cleared for a pipeline. When you reach the edge of the woods you walk quietly and speak in hushed voices so your presence will go unnoticed. The sun filters through the trees; it's cool in some spots where the sun doesn't get through.

When we reached the spot where the road began to slope, we stopped. I thought it was because we might see a deer or squirrel, but that wasn't the reason. We stopped because my son wanted me to see the beauty of the other side of the slope, where the sun was shining through the trees. He pointed to the path that wound up the side of the hill past a big oak tree where

WE STARTED up the path, and at the familiar hand signal we stopped. My son had caught sight of a gray squirrel just ahead. We stood perfectly still while it hung on the tree, upside down, and barked at us and shook its tail at the intruders. When we moved, it ran around the other side.

he sometimes sits. We walked quietly down the steep slope and crossed a small stream—he turned to reach for my hand to help me across because “it’s sort of slippery here, but it will be dry just a few feet ahead.” It was dry, and about halfway up the hill he pointed out “the stump” just a little ahead and to the left of the big oak. I’d seen the stump many times, but he was so happy to share its fame and the stories that went with it that I couldn’t help but enjoy hearing it all again.

We sat at the foot of the big oak tree. We could see a “bee tree” where honey bees were busy making trips back and forth to the hole in the tree. I hoped they had made enough honey to keep them through the winter. My son said they were there the year before, so maybe they will survive another winter. A gray squirrel came out and scampered about looking for nuts, sitting up occasionally to look around.

We could hear the wind coming as it roared through the treetops, and the young trees swayed as if to music heard only by them. I pulled my coat closer as the wind became a little cooler and the dampness crept through the paper bag I was given to sit on. We started up the path, and at the familiar hand signal we stopped. My son had caught sight of a gray squirrel on a tree just ahead. We stood perfectly still while it hung upside down, barked at us and shook its tail at the intruders. When we moved, it ran around the other side of the tree and disappeared.

While we walked, my son picked nuts to take home for the squirrels in his backyard. He smiled when I told him that it just doesn’t seem natural for a man to pick nuts for squirrels.

What better way to spend an autumn afternoon than walking with a son to a



special place? So many times over the years I’ve heard the words “I’ll be at the stump, Mom, if you need me.” I knew where “the stump” was and that it meant enjoying the sweet, nutty smell of the woods while listening for the bark of a gray squirrel on a peaceful afternoon or evening. It didn’t matter if the hunter came home empty-handed. Maybe it was too windy or just the wrong day, or maybe he really didn’t want to break the quiet beauty of the day.

This special place will always be in heart and mind—along with the young sons, now men, who enjoy the beauty of the land, the bark of a gray squirrel, and an autumn afternoon after the leaves have turned and the woods smell sweet and nutty and “special.” You’ll know what I mean if you have the privilege of walking in the woods on one of those days. There are no words to express how it feels to enjoy the beauty of such a day, and how the scent of the woods after the leaves have turned will call you back to that special place, if only in your memory.



FIELD NOTES



Poetic Justice

SUSQUEHANNA COUNTY—While searching a trailer, in which we found parts of an illegal deer, my deputies and I also found a plaque on a wall. It said, "Take notice that as from today's date, poachers shall be shot on first sight and if practicable, questioned afterwards. By order: J.R. Bramble, Head Game Keeper to His Grace, the Duke of Gumby. 1st November 1868."—WCO Charles J. Arcovitch, Kingsley.

Old Codger?

SNYDER COUNTY—None of us like to admit we're getting older, but the signs are there: the mountains seem steeper and the deer heavier. But I just knew I was getting older when I was preparing to cite a young woman for hunting unaccompanied by an adult and found that she was 25 years old.—WCO John Roller, Beavertown.



Easy Pickings

McKEAN COUNTY—A local squirrel hunter spotted two grays in an oak tree. He shot one of them, and while he was angling to get a shot at the second a great horned owl swooped down and carried off the dead squirrel.—WCO James E. Rankin, Port Allegany.

Oops

PERRY COUNTY—By the end of the opening day of buck season, WCOs tend to get a bit goofy. I had given a local family a deer shot by mistake, instructing them to put the head and hide in a bag that I would pick up the next day. Returning home that night, my son and I saw a vehicle drive up the driveway. It turned out to be members of the family to whom I'd given the deer. They came to tell me they couldn't follow my instructions because I'd already skinned the deer and removed its head before giving it to them.—WCO Leroy Everett, Newport.

Not Getting Message

PHILADELPHIA COUNTY—While hunting a Bucks County farm on the third day of buck season I saw five hunters, only one of whom was wearing the required fluorescent orange. One hunter was wearing no orange, two had only orange caps and another was wearing only an orange vest. The law requires 250 square inches of fluorescent orange on the head, chest and back combined. The fine for this violation is \$100; isn't a life worth much more? It appears the safety message is not reaching everyone.—WCO Richard J. Shire, Philadelphia.

Could Be Trouble

CLEARFIELD COUNTY—I took a live-trapped bear to a Dubois elementary school to demonstrate the process of immobilizing and ear-tagging prior to release. Several days later I received a stack of thank you notes, unedited by teachers. One student wrote, "Thank you for bringing the beer to school. I told my parents all about the beer . . ." I hope word of this doesn't get around or I won't be invited back to any more schools.—WCO Colleen M. Shannon, Luthersburg.

Everlasting Ties

BEDFORD COUNTY—We were all saddened by the passing of Cumberland County WCO Bob Snouffer last December, especially those of us from the 17th class of officers from the Ross Leffler School of Conservation. A special bond develops among classmates. After spending 50 weeks working, learning and living together, we became a family. And since our graduation in 1978, we are still drawn together by the comradery formed years ago. Bob's family of classmates will always share the loss, as does Bob's personal family. Bob will, nonetheless, always remain in our hearts and thoughts.—WCO Dave Koppenhaver, Everett.

A Real Ringer

BRADFORD COUNTY—A young hunter from Canton killed his first buck—a nice 9-point—on opening day, and when he and his family were washing the carcass they noticed a mud clot on one antler. Rinsing the mud away they saw a dark ring that turned out to be a 10 karat gold child's ring encrusted with three small rubies. A jeweler was able to clean the ring and appraised it at several hundred dollars. There's one young man who certainly won't forget his first buck, and neither will the rest of us.—WCO William A. Bower, Troy.

Point of Pride

VENANGO COUNTY—I took my 8-year-old daughter along to pick up a small bear that had been killed by a vehicle. After overcoming her initial sadness about the little bear being hit, she became very interested as I field dressed and skinned it. She was a big help and not a bit squeamish as I removed the entrails; she insisted on touching each part and learning its function. When we were done, she said: "I can't wait to get to school on Monday to tell the kids I held bear guts. This is grosser than anything the boys have ever done."—WCO Leonard C. Hribar, Seneca.

Spring Chicken

One of Farm-Game Manager Bob Correll's favorite stops is to visit retired Commission employee Walter Brenner. On the last trip, Walter showed his latest habitat work—cutting border edges of his fields to provide small game cover. Walter's cut is two miles long and 25 feet wide, and it has created about six acres of prime rabbit habitat. Not bad for a man 86 years of age.—LMO R.B. Belding, Waynesburg.



Wasted Film

TIOGA COUNTY—I was called about an injured bear in the Cowanesque River. Strangely enough, when I arrived there were no people and no sign of a bear. I learned later that a group of people were taking pictures of the "bear" from a bridge until one photographer decided to get closer. He discovered they had been shooting photos of a rock.—WCO Steve Gehringer, Mansfield.

Proud Trophy

McKEAN COUNTY—"Any deer hunted honestly and taken thoughtfully is a trophy to be proud of. . . ." Joe Arnette wrote that in a December 1990 *New York Conservationist* article. It would be hard to describe deer hunting any better. A tip of the Stetson to Arnette for taking a feeling shared by so many hunters and putting it into words.—WCO John P. Dzemyan, Smethport.



Of Course Not

ADAMS COUNTY—In deer season a hunter I was about to cite for late hunting gave this excuse: “Officer, the reason my gun was loaded 40 minutes after quitting time is that I’m wearing doe-in-heat buck lure. I was afraid a buck might charge me, and in the dark I wouldn’t be able to load my gun. And you wouldn’t want me to die of rabies from a charging buck, would you?”—WCO Steve Spangler, West Berlin.

Thanks for the Help

WARREN COUNTY—A hunting accident near Tidioute last October resulted in the death of an avid hunter and sportsman. It was a most unfortunate situation but I’d nonetheless like to thank members of the Tidioute Fire Company, my deputies, neighboring WCOs and the local Fish Commission officer for all the assistance they provided.—WCO James W. Egley, Tidioute.

We Don’t Either

CLEARFIELD COUNTY—It seems that a lot of people poach deer simply because they’re greedy. I recently arrested a man for killing three deer during archery season, and when I searched his freezer I found venison dating back four years. I asked him why he killed so many deer when he already had so much meat, and he told me I wouldn’t understand. He’s right; I don’t.—WCO Don Zimmerman, Drifting.

It’s the Law, Too

CHESTER COUNTY—While leafing through a 1925 outdoor magazine, I was surprised to find an article warning of the danger of lead shot ingestion to waterfowl. It’s unfortunate that 65 years after that was written many hunters are still reluctant to shoot steel shot while pursuing ducks and geese. After reading about steel shot, patterning it in my shotgun and field testing it in the duck marshes and goose fields, I’m convinced that today’s steel shot loads are very effective.—WCO William C. Rago, Nottingham.

Just in Time

ADAMS COUNTY—A week after sending complimentary weather stations to the cooperators in my district—those who keep their lands open to public hunting—Hurricane Lilly passed by. The storm dumped huge amounts of precipitation on the area, and many of the landowners contacted me to let me know the rain gauges worked really well. They recorded four inches of rain overnight.—WCO Larry Haynes, Gettysburg.



Fox Hound

Small game hunters have been known to use all kinds of dogs—beagles, Labs, dachshunds and the like. But a sportsman figured he had seen it all when he observed a group of hunters in Butler County calling—of all things—their silver fox.—LMO Ned Weston, West Sunbury.

Bad Timing

LUZERNE COUNTY—During my career I've heard many excuses for spotting deer after hours. The most recent one came from a man who said he thought legal time was still midnight—as it was a few years ago—and that his car clock was still on daylight savings time. The violation occurred two weeks after time switched back to eastern standard, and both occupants said they were hunters but did not know the legal spotlighting hours had changed. A lot of violations would be avoided if sportsmen would just read the digest that comes with hunting and furtakers licenses. And don't forget to change your clocks.—WCO Edward J. Zindell, Wilkes-Barre.

A Preventable Loss

Three farms in the Hamburg area were removed from our Farm-Game program last year due to hunters' actions. One hunter left a gate open, allowing the landowner's cattle to get into his cornfield; another landowner got tired of people hunting his standing grain fields. Ethical sportsmen lost 560 acres—almost one square mile—of land open to hunting because of this unsportsmanlike behavior.—LMO Stephen L. Opet, Tamaqua.

High and Dry

YORK COUNTY—A local hunter went to Elk County during deer season and was sneaking along a stream bordered by a sheer rock face. The trail he was following got very narrow, and the stream was running full. The hunter wanted to keep his feet dry, and he reached for a rock ledge about head-high to help maintain his balance. It happened to be a ledge where a bobcat was sunning himself and, in fright, the 'cat threw a paw in the hunter's direction. The sportsman said the next thing he remembered he was standing on the other side of the stream, and he remarked that the cold water hadn't bothered him one bit.—WCO G.J. Martin, Spring Grove.

Commendable Attitudes

MERCER COUNTY—During waterfowl season I spent a lot of time along the swamps and waterways, checking many hunters in areas they didn't expect to see a WCO. I observed violations on most days, but what surprised me was the hunters' attitudes. More than once I was thanked for being out there and for checking them. I even received a thank you note from a man who was cited for late hunting.—WCO Donald G. Chaybin, Greenville.



No, Sir

During small game season, some hunters found a license and gave it to me, and I returned it to the owner. The owner was 87 years old, and during our conversation I asked him how long he was going to continue to hunt. "Why?" he asked. "Is there an age limit?"—FAS P.A. Hilbert, Cleona.

What A Blast

SCHUYLKILL COUNTY—A fellow WCO once told me he enjoyed the job because "You never know what might happen during the course of each day." That point was brought home last buck season when a hunter discovered what appeared to be dynamite. I called the State Police, and we all waited and watched while a U.S. Army bomb squad destroyed more than 50 dynamite sticks and 130 blasting caps that had apparently been stolen from a local mining operation.—WCO Stephen S. Hower, Tremont.

Long Hard Road

BEAVER COUNTY—Whenever I'm privileged to speak to a group of young people, I always ask, "What is the greatest threat to our wildlife today?" The top answers are almost always hunting and trapping. I recently posed the same question to a group of adults and got the same answers. We've made progress in our efforts to educate the public, but we still have a long, long way to go.—WCO Keith A. Falasco, Beaver Falls.

Welcome Aboard

Two new employees have joined my Food and Cover Corps crews. Larry A. Fullem, Uniontown, transferred from DER to become a member of the Fayette County crew. Robert Truax, Somerset, has transferred from Southwest Region dispatcher to a position with the Somerset County crew. Welcome aboard, gentlemen; we look forward to working with you.—LMO Barry K. Ray, Sr., Rockwood.



In A Pickle

WYOMING COUNTY—While traveling Route 6, I passed a lawn ornament supply center and noticed a red fox standing at the edge of the road. He was looking at the ornaments scattered across the property—bear, deer, ducks and other ceramic animals. As I drove past I couldn't help wondering whether he was trying to figure out if he was going to have dinner or be dinner.—WCO William Wasserman, Tunkhannock.

Bigfoot Explained

BRADFORD COUNTY—When most people hear the word "bigfoot" they think of the large, hairy creature purported to roam the Pacific Northwest. Many county residents have a different picture, that of a local man in a gorilla suit who scared the daylights out of this new WCO on night patrol, a prank masterminded by one of my deputies. Neighboring officer Bill Bower wrote about the joke for the February "Field Note," and ever since then my deputy has been complaining of sleepless nights and a stiff neck—maladies caused, no doubt, from the constant need to look over his shoulder.—WCO Richard P. Larned, Warren Center.

Extremely Safe

BLAIR COUNTY—Tyrone's Frank Light is a safety conscious hunter, and he always uses a safety belt to secure himself when he's in his tree stand. This past archery season he had strapped himself in and prepared for an enjoyable day of hunting. But the deer didn't move that day and he wasn't afforded an opportunity to shoot. Just as well, though, because when he secured himself he also accidentally strapped his bow to the tree.—WCO Steve Kleiner, Altoona.

Take A Stand

WAYNE COUNTY—Each season I receive calls from people upset over the actions of unscrupulous individuals they have observed violating the law. But when I ask these people if they are willing to testify against the violators they invariably say, "I can't get involved" or "Don't use my name." These folks don't realize that we can arrest only people we actually see breaking the law, or those we can prove through a preponderance of evidence have committed a violation. Everyone has a stake in the commonwealth's wildlife, and citizens should have the courage to make a stand against lawbreakers.—WCO Donald R. Schauer, Honesdale.



GEORGE SCHEFFLER, center, Easton, collected this 209 pound sow in Pike County. It was his first bear. The 1990 bear season went essentially as expected for commonwealth sportsmen. The harvest figure of 1200 follows on the heels of a record 2213 bears killed in 1989. The Northcentral Region topped the state again in 1990.

Bear Harvest Goes As Predicted

BEAR HUNTERS took 1,200 bruins in the 1990 three-day season, a figure in line with Commission predictions. Pre-season estimates ran between 1,300 and 1,500 animals. Over the past eight years bear harvests have averaged approximately 1,500.

A number of factors influenced last year's bear kill. Commission biologist Gary Alt believes a reduced fall mast crop across some prime black bear range compelled the animals to den earlier than normal.

Dale Sheffer, then director of the wildlife management bureau, said 1989's record harvest—in which hunters took 2,213 animals—and a lack of snow cover in 1990 were also contributing factors.

The largest bear taken in 1990 dressed out at 577 pounds. It was shot

on opening day in Warren County. Also on opening day, in Schuylkill County, a bear with a New Jersey ear tag was killed near Hawk Mountain. Two bears were killed in Northampton County, the first bruins shot there since 1967.

Lycoming County led the count in the 1990 season with a kill of 117; Clinton was next with 83; Clearfield and



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GAME NEWS

For a Friend . . .

Centre counties each accounted for 72. Rounding out the top 10 counties were: Forest, 59; Monroe, 56; McKean, 55; Pike, 52; Tioga, 50; and Potter, 48.

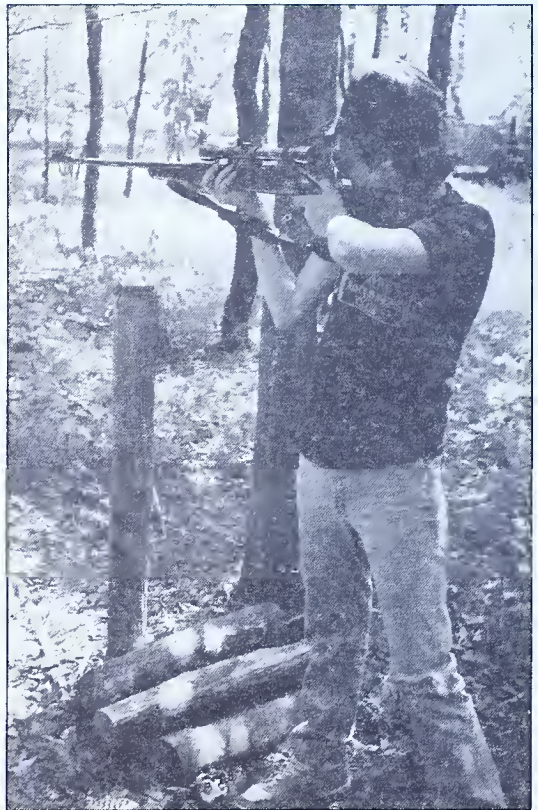
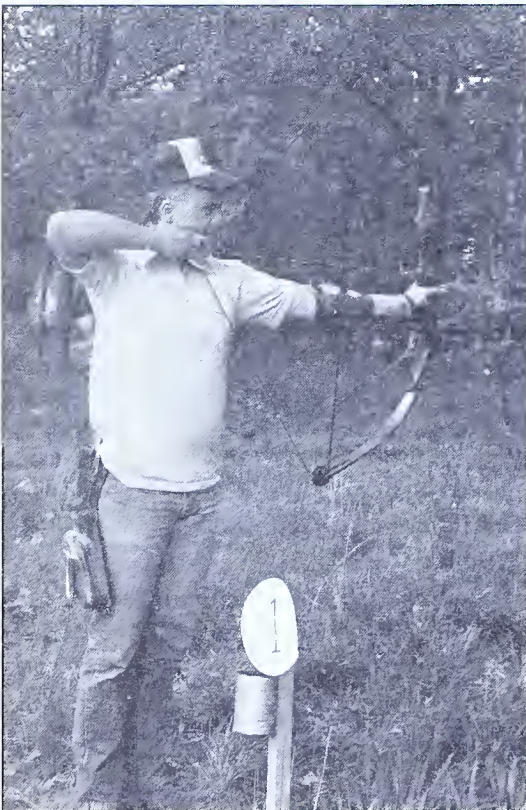
On a side note, an anti-hunting group attempted to disrupt sportsmen activi-

ties on opening day at Promised Land State Park. Commission personnel were there to greet—as it turned out—10 demonstrators. The group was actually outnumbered by members of the news media it had cajoled to attend. One cameraman told a Game Commission officer, "This is a farce; we shouldn't be here."

Demonstrators spent about four hours in the woods trying to harass hunters, and it soon became apparent they weren't going to accomplish their goal of getting arrested.

Youth Tournament Slated For June

THE AGENCY WILL HOLD its annual Hunter Education Youth Shooting Tournament in Orangeville on June 1. Hunter-ed graduates ages 12 through 19 will test their skills in riflery, archery, shotgun shooting and wildlife identification. Awards are presented to junior (12-14) and senior (15-19) categories for both team and individual efforts. The winning senior and junior teams will represent the state at the NRA's Youth Hunter Education Challenge. The tournament, hosted by the Orangeville Sportsmen's Club, is being sponsored by the Commission, K-Mart, Wilkes-Barre *Sunday Independent*, Simmons Scopes and Penguin Industries. Students interested in the program should contact Information & Education Supervisor Ed Sherlinski, P.O. Box 220, Dallas, 18612, or call (717) 675-1143 or 1144.



Game Commission Publications & Items

Quantity	Books	Price
_____	THE SHOOTER'S CORNER, by Don Lewis	\$ 15.00
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus	\$ 10.00
_____	PENNSYLVANIA BIG GAME RECORDS, 1965-1986	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Doult, et al	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK	\$ 4.00
_____	DUCKS AT A DISTANCE	\$ 1.00
_____	WOODLANDS AND WILDLIFE	\$ 3.00
_____	WOODWORKING FOR WILDLIFE	\$ 3.00

Working Together For Wildlife

_____	1991 ART PRINT "At The Den" (Red Fox)	\$125.00
_____	1990 ART PRINT "Coming Home" (Bald Eagle)	\$125.00
_____	1989 ART PRINT "Last Glance" (White-tailed Deer)	\$125.00
_____	1988 ART PRINT "Snowy Egret"	\$125.00
_____	1987 ART PRINT "Autumn Challenge" (Elk)	\$125.00
_____	1986 ART PRINT "Country Lane Kestrel"	\$125.00
_____	1991 RED FOX PATCH	\$ 3.00
_____	1990 BALD EAGLE PATCH	\$ 3.00
_____	1989 WHITETAIL DEER PATCH	\$ 3.00
_____	1988 SNOWY EGRET PATCH	\$ 3.00
_____	1987 ELK PATCH	\$ 3.00
_____	1986 KESTREL PATCH	\$ 3.00
_____	1985 BOBCAT PATCH	\$ 3.00
_____	1984 BLUEBIRD PATCH	\$ 3.00
_____	1981 FLYING SQUIRREL PATCH	\$ 3.00

Wildlife Management Areas

_____	PYMATUNING WATERFOWL PATCH	\$ 2.00
_____	MIDDLE CREEK PATCH	\$ 2.00

Pennsylvania Bird and Mammal Charts

_____	Set #1 (4 charts) 20" x 30"	\$ 4.00
_____	Set #2 (4 charts) 20" x 30"	\$ 4.00
_____	Set #3 (8 charts) 11" x 14"	\$ 4.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel)	\$ 2.00

Sport Items

_____	Bronze SPORT Tie-Tac/Lapel Pin	\$ 3.50
_____	SPORT Patch	\$ 1.00
_____	SPORT Hat (One Size Fits All)	\$ 4.00
_____	Fluorescent Orange Safety Alert Band	\$ 3.00

Waterfowl Management Stamps (Voluntary)

_____	1990 Waterfowl Management Stamp	\$ 5.50
_____	1989 Waterfowl Management Stamp	\$ 5.50

Mail orders along with remittance (do not send cash) to Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Checks should be made payable to: Pennsylvania Game Commission. U.S. currency only.



TO SOME DEER HUNTERS, the use of cover scents or attractors is as natural as carrying a bow or gun into the woods. But utilizing this hunting aid is not as easy as spraying scent indiscriminately through the mountains. It takes knowledge, study and experience to get the most from these products, and they can still bring unpredictable results.

It's Only Natural

MY FIRST EXPERIENCE with the attracting power of buck lure was on the main street of Clarendon, a small town in the mountains of Warren County. Earlier that morning I'd sprinkled liquid deer scent on bits of rag tied

through my boot laces, in an effort to draw deer to my archery stand.

The scent stuff certainly worked, because as soon as I appeared, they came running . . . not deer, but dogs. The bunch of hounds that hung outside the local diner pounced on me, slobbering, sniffing, tails wagging, licking and nipping my laces in canine ecstasy. I barely got inside the door with footgear intact.

I don't know what ingredients go into deer lure, and from all I've heard, I don't want to know, either. I've spilled it on my clothing and hands too often. What I do know about lure is that in the last dozen years, this dark hued, musky scented witch's brew has been to blame or congratulate for the most

Another View...

by Linda Steiner

appalling, and most amazing, incidents connected with my hunting career, both in and out of the woods.

Nowadays many concoctions are available to those who want to confound or appeal to the deer's sense of smell. Basically, there are curiosity scents, cover scents, food scents and sex scents. The last are the most capable of getting a reaction, especially during the whitetail rut. Stated plainly, sex scent is mainly urine from the doe deer in heat, designed to bring eager bucks on the run.

To a deer, the aroma no doubt has all the attraction of Chanel No. 5, but I can attest to the fact that when worn by humans, it is not so appealing as Paris' best. I have sat in agony in crowded restaurants on our way home from a hunt, wearing the shirt or slacks on which I'd spilled half a bottle of buck lure, while other patrons glanced around to see whose deodorant had failed them. The standard joke among our friends was that it took twice as long for us to return because my husband stopped and rubbed his head against every tree on the way home.

Almost as bad was dumping buck lure on the carpet of our camping van. Although it was speedily wiped up, a little lure produces a lot of scent—especially in confined quarters, in damp weather—and lasts a long long time. It also contributes to how quickly a vehicle is traded in.

Deer scent isn't nearly as potent as some of the cover scents, especially skunk. I used one brand of skunk scent that was so volatile that I recapped it, put it in a zip loc bag, sealed it in a coffee can, inside another plastic bag, and still had to hang that bag outside the van each night. I swore I could still smell it, or maybe it was the local skunks that had come by to see who had just moved into the neighborhood.

I can't say that sprinkling buck lure around has made me the Pied Piper of whitetails, but it has interested enough of them to make the little bottle a standard part of my archery gear. Here in Pennsylvania, bowhunting is scheduled

such that the deer may or may not be deeply into the rut before the end of the season. I've found spectacular rut sign some years, very little in others. But whenever circumstances and scent were right, the results were entertaining, if not always tag-filling.

One thing about buck lure that I've had to learn the hard way is to be careful about its placement. Scent can be either a powerful tool or a powerful impediment. I used to douse my boot bottoms, figuring as I walked I would be laying a lure trap that would snag any deer crossing my path and reel him, or her, in. Does, too, will come to such scent.

I watched two of them meander down a hill, cut through the open woods, and hit my scent line. They walked it straight back, looking for me, and found me there on the ground, trying to draw the bow. They spooked before I could get a shot off, leaving me with the resolution to wear a removable scent pad on my boots and leave it, and my trail end, some yards away.

Well Pummeled Scrape

This past archery season I found what I thought to be the perfect setup to take a buck. Late in the afternoon, I found a pair of well pummeled scrapes along an old logging road. Twenty yards away was a jumble of limbs under a dark hemlock that would make a good backdrop for a ground stand. Deer tracks told me the buck was traveling the logging trail, and I counted on him checking the scrapes before dark.

There was a minor hitch in the plan, but I discounted it at the time. Another deer path led from behind me directly past the blowdown. I didn't think the buck would come from that direction as the breeze was blowing that way and he'd be put off by the human scent. I doused the closest scrape with buck lure and went over to the stand. As I cleared the leaves for a soft, quiet place to kneel, I dribbled a few drops of scent on the exposed earth. Why, I don't know.

I knelt and watched to the right and

left as the minutes ticked off toward quitting time. Then I heard a twig snap behind me. Something was on the trail, despite the wind. I looked over my shoulder, right at a 4-point coming at me at a trot, 20 yards and closing. As I couldn't turn, I froze. Maybe he'd go right on past to the scrape.

Slammed on Brakes

When the buck was just opposite he slammed on the brakes. At 10 feet he stood and sniffed, trying to sort things out. I could hear the deer's breathing and watched him wet his dark nose with a pink tongue, smelling doe but seeing an odd crouching shape with a wood and string contraption in front of it. For half a minute neither of us moved. Suddenly he jumped, I flinched, and in seconds I was alone in

the woods, staring at hoofprints dug deep in the dirt, almost within reach.

I resolved never to put scent at my location again, only at the place where I wanted to shoot, and to use the portable tree stand more.

Hunting with deer lure is tricky, and like many tricks, it can backfire. I've seen deer ignore it, be frightened by it, and all but grin and roll in it. Every animal, and every circumstance has been different, with often unpredictable, but sometimes satisfying results.

Of course, we women shouldn't be surprised. That's been the reaction to the various attracting scents we've employed since time immemorial. After all, why should the reaction to the aromatic wiles we use on whitetails be any different than that of the males of our own species?

GAMEcooking Tips

Cornish Pasties

In the Lehigh Valley, there's a small community that boasts descendants from Cornwall, England. Several times a year, local churches make English pasties, and they're sold almost before the dough is rolled out. I've enjoyed these hearty treats for years, and have even had the pleasure of tasting the real thing while dining in Great Britain.

Using venison makes pasties even better, and certainly more authentic, since the national cuisine of England is wild game.

Pastry

- 2 cups flour
- 2 tsp. salt
- ¼ lb. butter
- ¼ lb. lard
- 1 egg, well beaten
- water
- 1 tsp. oregano
- ½ tsp. basil
- salt and pepper to taste

Filling

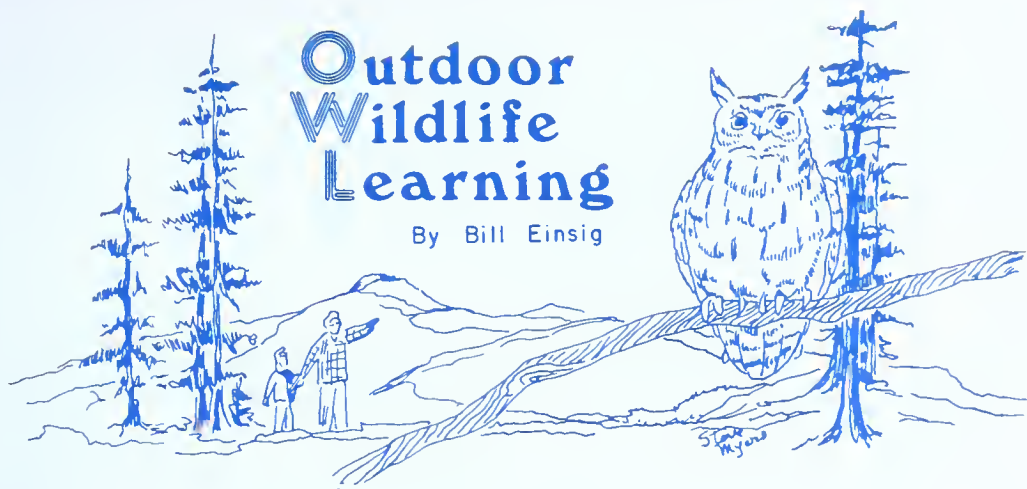
- ¾ lb. venison steak cut in ¼ inch cubes, well trimmed
- ½ lb. medium potatoes (3-4) cut in ½ inch cubes
- 2 medium onions, chopped extra fine
- 2 tbs. beef bouillon

Mix the flour, salt and lard together until mixture has the texture of bread-crumbs. Mix with very cold water to form a stiff paste, so that all dough forms a ball and leaves the bowl clean. Roll out the pastry to ⅛ inch thick. Cut 6-inch circles. Put 1½ tbs. filling in center of each pastry and brush edges with egg white. Crimp edges with a fork. Cut a small slit in the center of the top, and bake at 350° for 1 hour. Lower the heat to 300° the last half hour. If pasties seem to get too brown, loosely cover with foil.

—FROM WILD GAME COOKERY
REVISED AND EXPANDED EDITION
BY CAROL VANCE WARY

Outdoor Wildlife Learning

By Bill Einsig



Antlers and Ringnecks

Dear Mr. Owl,

What is the proper way of measuring the lengths of antlers for scoring purposes? Should I measure from the skull or from the hairline? F.O., Dover

Dear F.O.,

Antler measurements are commonly taken from the burr—the raised ring near the antler's base. A legal deer during the regular antlered season, for example, must have a minimum of two points per antler OR have at least one spike at least three inches long when measured from the burr.

The portion below the burr is a permanent, bony extension of the buck's skull called the pedicel. Each year this serves as the base for new antler growth. When the antler drops in mid-winter, a layer of bone dissolves just below the burr separating the antler from the pedicel. Only a small layer of bone—usually less than 1/4-inch thick—remains below the burr of a dropped antler.

The Boone and Crockett Club's scoring system for whitetails uses the burr as the reference point for measuring the length of the antler's main beam. The pedicel is not measured.

Dear Mr. Owl,

I lived in Berks County all my life and we used to have plenty of pheasants to hunt. In recent years the number has been decreasing and now we don't see any. What

happened to the pheasant population? C.C., Boyertown

Dear C.C.,

Your letter is not the only one we've received asking about the problems of the pheasant population. Many of us who live in what was prime pheasant territory remember well the way it used to be.

In most years, my family would limit out on cockbirds before the morning of opening day was half over. We would then concentrate on rabbits, squirrels, or just drive fields for other hunters. Now, the thrill of looking for that clean shot at one of several cockbirds in a mixed flock of hens and cocks seems destined to remain only a good memory.

But the pheasant population is not the only thing that has changed in the last 30 years. Much of the land I used to hunt now has new homes, mowed lawns and parking lots. Other areas where I remember idle grass fields and strips of corn are now paved with strips of asphalt surrounding shopping malls.

From 1977 to 1982, York County, where I live, lost about 5000 acres of farmland. But from 1982 to 1987 we lost more than 21,000 acres. It's incredible to me that we continue this mad rush to destroy our best cropland.

There have also been dramatic changes in the way farmers work their fields. There are fewer idle strips of grassland allowed to grow into nesting cover,

DO SOMETHING

WILD



THE WILD Resource Conservation Fund depends entirely on state income tax check-off monies and voluntary contributions to support its nongame and native-plant programs; it receives no state tax dollars. By checking Line 11C (short form) or 19C (long form) on their state tax returns, Pennsylvanians can donate all or part of their refunds to the fund.

less weedy cover in the rows of no-till fields and fewer picked corn fields with standing stalks. At one time, a picked corn field provided some of the best hunting throughout the season. Today, there is no cover in the wake of a corn combine.

In the March 1986 issue, *GAME NEWS* contained a report about the success of pheasant nests in hay fields mowed in early June compared with nests in fields mowed after June 21. Researchers found, during the 4-year study, almost 19 percent of the nesting hens were killed by mowing machinery in fields mowed late in the month. In fields mowed on the regular schedule, early in June, more than 40 percent of the hens were killed. So, the shift to new hay varieties that require earlier harvesting and the development of larger, faster mowers have contributed to fewer chicks each year.

Other possible factors that influence the reproductive rate appear to be field size, the mix of plant species in the nesting area, weather in winter and spring, predation and pesticides. The pheasant decline is certainly a complex problem and unlikely to be the result of a single cause. Loss of appropriate habitat, however, appears to be a major factor, as it is with most wildlife problems.

It's important to remember that while changing agricultural practices and loss of farmland are often cited as reasons for the decline of pheasant populations, we

should not blame farmers.

As consumers, we demand high quality farm products at reasonable prices. New techniques have helped farmers provide for all of us, but with its benefits new technology also usually brings hidden costs. We always need to recognize problems and work together to solve them.

Every time I catch myself wishing a farmer would hold onto his land so a developer can't change it into a shopping mall, I remind myself that the only reason the developer is willing to invest millions of dollars for perhaps a hundred acres, is that he knows I, and thousands like me, am more than eager to make his investment pay off. I often wonder what I would do if I were in that farmer's place.

The Game Commission continues to study the pheasant problem and can point to a few hopeful signs. Hen pheasants used for propagation are now being released earlier and should have opportunity to lay one or more clutches. For example, in the fall of 1990, 200,000 pheasants were released; 23,000 birds have been held to lay eggs for next year's stocking.

These birds will begin producing eggs by the end of March and would normally continue to lay eggs well into the summer before they were also released. Now, these breeders will be released by the end of May and, with luck, will continue laying eggs in wild nests.

We've also experienced a series of mild winters. If this trend continues, it would benefit the pheasant population by providing more nesting hens, more clutches, more broods and more adult birds.

In the final analysis, however, the fate of the pheasant, like that of all other wild animals, depends on what we do about the continual loss of quality habitat. We've changed the land so rapidly that few species are able to adapt.

Fun Games

"Name that Bird"

By Connie Mertz

What migrants are returning? Unscramble the letters below to make the names of some common birds. Then place either a (T) if they are returning from Central/South America or a (C) if they are returning from the Chesapeake Bay region to the Gulf of Mexico.

_____ 1. _____ - _____
K A L C B - L I B L E D O C O U C K

_____ 2. _____
A N A C D A S E G E E

_____ 3. _____
R A G E T L E U B O R E N H

_____ 4. _____ - _____
E R D - D I G W E N C I R B A K B L D

_____ 5. _____ - _____
R A B D O - G I W E N D W A K H

_____ 6. _____
L U P E R P R I M A T N

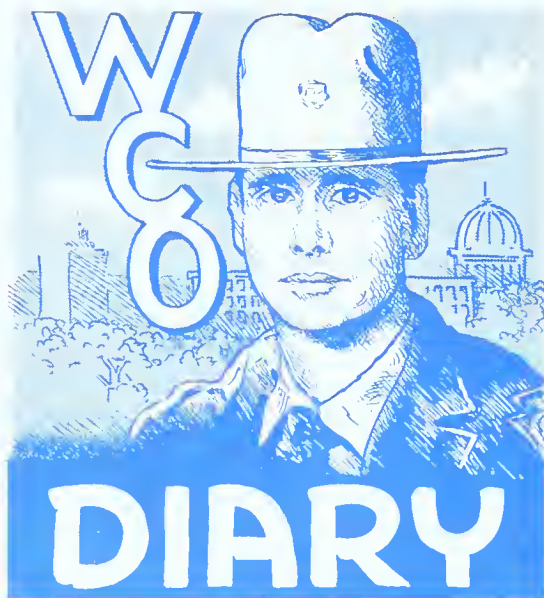
_____ 7. _____
S U H O E N R W E

_____ 8. _____
B R I N O

_____ 9. _____
Y O P R E S

_____ 10. _____
L A S R E C T G A A N T R E

Answers on page 64



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

MARCH IS a month of subtle transition here in the southeast quadrant of our state. The sun, rising ever higher above the southern horizon, slices through winter's grip. The penetrating rays eventually find even the most sheltered nooks of our landscape. Sprigs of green appear in wetland bottoms of forest and field by month's end, and life begins a tidal rhythm of ebbs and flows with the warming days.

This month brings a transition to my activities as well. Emphasis shifts full throttle into an educational mode. While many people perceive me as a law enforcement officer patrolling the backcountry in search of poachers and "hoofties," only a few recognize my responsibilities in the realm of conservation education.

Early in the history of wildlife conservation, law enforcement was the primary focus of agencies throughout our nation. Uncontrolled hunting threatened the future of wildlife resources. A long, uphill battle was waged to curb accepted practices of killing for the market, the table, or even just for thrill. Ultimately, diligent law enforcement by a dedicated corps of conservation officers achieved an acceptable level of compliance. Sure, poachers are still among us, but not to the degree that once seriously threatened our wildlife resources.

Today, a greater threat to wildlife is lurking in our everyday lifestyle and goes unnoticed by many. Habitat loss from the rapid growth and development of a burgeoning and affluent population continues to imperil many species of wild birds and mammals.

Just as threatening is the cultural trend toward urban and suburban living, which has resulted in a lifestyle characterized by a great amount of time spent indoors in climate controlled environments. A typical example has both husband and wife commuting to and working in an office setting, shopping in enclosed malls, and recreating indoors at spas, clubs, or at home in front of an array of electronic entertainment systems. Quite a contrast to life on the farm just a few generations ago.

This unprecedented change in daily living habits has greatly reduced exposures to wild places and wild things. With this lessened exposure, a loss of both knowledge and appreciation of wildlife and its needs are the final result.

The "double-barreled" threat of rapid development, coupled with public ignorance, is the dark cloud looming over our wildlife today, just as the gun of the market hunter influenced the plight of our wildlife from a legacy a lifetime ago. Conservation officers, therefore, must shoulder the responsibility of informing and educating our public, to heighten its awareness and foster an appreciation for our wildlife treasures.

MARCH 3—After completing the seemingly ever-present reports due at the beginning of each month, I'm on the road to conduct a conservation education program for a combined audience of several Cub Scout packs from the Harrisburg area. The young lads are eager to learn about the career of a conservation officer. I have developed a slide presentation that I use frequently to aid me in sharing my unique job responsibilities with curious audiences. With younger groups I provide analogies that they can understand. Invariably the question arises, "How can you find enough time to be a policeman, teacher, biologist, forester, farmer, administrator and doctor?" I guess WCOs have developed another talent—juggling.

MARCH 6—Continued training is the key to better performance in any profession, and one particular tool law enforcement

officers must rely on is their sidearms. Proficiency with such equipment cannot be overemphasized. This afternoon finds me in Clarks Valley, spending several hours on our target range on SGL 211. I'm preparing for an upcoming dim-light and foul weather qualification shoot.

Later, I again have the privilege to address the Harrisburg Hunters and Anglers Association. I'm always amazed at the turnout Hunters and Anglers have for their monthly meetings. Attendance ranges from 150 to 200 per month. This organization typifies an active, energetic sporting group. Tonight, I share my district's law enforcement activities and recap interesting facts and figures from both the deputies' and my activities during the preceding year.

Afterward, I resume patrol duties on SGL 211 for the remainder of the evening. Nothing eventful happens, and I end my vigil around midnight.

MARCH 9—A busy day begins with me gathering props and instructional aids for a conservation education program to be conducted later in the day. Before that, however, I must deliver several cases of instructional materials to Duane Foresburg, the county conservation district's resource specialist, who has an office in Dauphin.

Each spring the National Wildlife Federation sponsors "National Wildlife Week" to recognize our natural resources, and to highlight a timely issue. The third week in March is typically when teachers are encouraged to cover or emphasize wildlife conservation and management during their regular classroom activities. The materials I'm delivering are NWF's instructional aids that will be distributed to teachers in the 12 public school districts and numerous other private schools within the county.

Afternoon finds me in the auditorium of the Steelton-Highspire Senior High School. I'm to present a program on birds of prey in Pennsylvania for the 10th grade biology classes. Many students were amazed at the number of different hawks and owls common to our state. But the real showstopper was the regal mount of our national emblem, the bald eagle. The bird's large size coupled with the fact that one of the Commission's reintroduction sites is located here in the county—at Haldemans Island—kept the large assembly's attention.

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; Northeast, 1-800-228-0789; and Southeast, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

After that, I'm back at the firing range, practicing again with my duty sidearm. Days such as this, with a wide variety of settings and duties, make this job most enjoyable.

MARCH 10—An exceptionally ambitious seminar had been formulated by the Dauphin County Conservation District. Authorities from state agencies and private consulting groups gathered at the county's district office to present a program entitled "Bringing Back Farmland Wildlife" for private landowners. The day at this informative program finds me rubbing shoulders with the audience and a veritable "who's who" of wildlife experts. Landowners from throughout the south-central portion of the state received a wealth of information and valuable practices to take home and implement on their properties.

Lectures, films, and slide presentations garnished the event, which was further highlighted by a field trip to nearby farms enrolled in the Game Commission's Farm-Game Public Access program. LMO Ron Sutherland, who is responsible for managing the Farm-Game program in Dauphin and Lebanon counties, served as tour guide.

From there I'm off to SGL 242, York County, for our qualification shoot. Several times each year, Commission officers are required to demonstrate their skills in handgun proficiency by qualifying with all duty firearms issued to or used by them for law enforcement activities. The courses of fire are established and

IT'S THE LAW



Question

May I use an electronic caller for turkey hunting?

Answer

No. It is unlawful to use an electronic device to lure wildlife, except for foxes, crows, coyotes and raccoons.

closely regulated by personnel from the agency's Bureau of Law Enforcement. The courses are designed to test an officer's ability in various simulated field conditions. An established qualification level, or score, must be attained in order for an officer to be permitted to participate in law enforcement activities.

Today, WCOs and deputies from York and Dauphin counties will be shooting several different courses. First, a foul-weather shoot will test an officer's ability in actual cold weather or winter conditions. Rain or snow often can be anticipated during our shoots at this time of year, and such conditions are when conservation officers frequently find themselves afield.

A shotgun course follows, to test officers in their use of police-style shotguns. Finally, a dim-light course of fire challenges officers in their shooting proficiency under poor light or nighttime conditions. Various situations are devised to sample the most probable situations an officer may experience in an actual defensive shooting situation afield. Shooting conditions during the course of fire vary from complete darkness to the use of a flashlight, and finally to the use of flashing red strobe lights atop patrol vehicles.

Commission officers continue to prove their proficiency during these challenging training sessions. WCO Greg Houghton,

a certified firearms instructor for the Commission, did an outstanding job conducting the instruction and overseeing the shooting.

MARCH 26—Each year landowners enrolled in our Safety Zone program are given the opportunity to order various seedlings that provide food and cover for wildlife. The seedlings, grown at the Commission's Howard Nursery facility, are offered to the landowners free of charge. This seedling program is just one of many benefits of being enrolled in our public access programs.

This morning I meet with Dauphin County's food and cover crew at the storage building on SGL 211 in Clark's Valley to sort and count my district's seedling order. The bulk of the morning is spent distributing these seedlings to the various landowners here.

Upon completing the deliveries, I swing by Hershey and meet with the farm staff at the Milton S. Hershey School and Trust Foundation. This is an outstanding institution that was established by the late entrepreneur and philanthropist, Milton Hershey, founder of the Hershey Chocolate Corporation. Overall, the school owns and administers nearly 10,000 acres with a large portion of the area in agricultural production.

The land has been closed to public hunting and is now beginning to suffer severe damage from a growing deer population. I explain to the staff the options provided by the Game and Wildlife Code to minimize such deer related damage. I also suggest some additional means of control through public hunting. In rapidly developing areas, safety concerns and landownership rights are posing some complex problems.

While in town, I meet with a gentleman who had been treated to a rare wildlife drama. Early the previous day, while sipping his morning coffee and looking out his living room window, he suddenly saw a great horned owl alight atop a nearby tree. No sooner had the owl landed than it was quickly followed by an angry mob of crows. The crows relentlessly harassed the defenseless owl until one of them eventually inflicted a mortal wound to their age-old adversary. The owl fell limp and lifeless to the gentleman's lawn. The fellow wanted to keep the owl and have it mounted, but after I explained why such an option is prohibited, he gave me the

owl. I forwarded it to the curator of the State Museum in Harrisburg. This fine specimen is now part of the museum's outstanding collection of Pennsylvania flora and fauna, and on display to be enjoyed by all who visit the institution.

MARCH 28—Finally, after much anticipation, today my new two-way radio unit is to be installed in my patrol vehicle. With all the features found on this modern tool, officers, the public and the wildlife resource will benefit.

MARCH 29—Each year the Commission recognizes those individuals who best exemplify our SPORT program. I had nominated two worthy recipients from my district because of their assistance in the apprehension and prosecution of game law violators. Corporal Dan Hess of the Derry Township Police Department, and John Groff of Hummelstown, I'm proud to report, were the deserving winners.

Dan continually goes above and beyond his call of duty as a township police officer by getting involved in game law violations he encounters. John, on the other hand, had the most unusual opportunity to take the initiative after witnessing a quite suspicious occurrence in West Hanover township.

John was rabbit hunting during the early morning hours of the Saturday before buck season when he happened upon a few tufts of deer hair and a spent shotshell casing marked "slug." That in itself is not unusual; nearly every sportsman finds tufts of hair from time to time or spent ammo casings.

John had the same sort of indifference until he found more hair, another casing, and a few drops of blood. His curiosity aroused, John followed a faint drag line to a nearby equipment shed. A few more drops of blood glistened on the door to the shed, but the most conclusive piece of evidence was found by John's beagle—a fresh pile of deer entrails in an adjacent dumpster.

Clearly, John knew something wasn't right. He made note of all of the items, jotted down a license number and vehicle description from a car parked near the shed, and provided a physical descrip-

tion of the two fellows working nearby. Most importantly, John promptly contacted Deputy Larry Mummert and explained what he had found.

It took us several days to catch up to the fellows John had seen at the shed. After some pointed questioning, the individuals admitted to shooting a deer on the morning in question.

The deer they shot, however, wasn't an ordinary deer. Our investigation revealed the deer to be a 13-point buck with a 20-inch spread—a trophy by anybody's standard. The fellows paid hefty fines, lost the shotgun that had been used, and won't be able to buy licenses for several years.

Their rationale for shooting the deer out of season was that they had been watching this particular buck all autumn, and they knew they would have to be at work on the opening day of the season. So when the early opportunity presented itself, they simply took advantage of it. But because of John's initiative and willingness to become involved, justice prevailed. John's actions exemplify our SPORT program at its best.

MARCH 30—After a full and eventful day of foot patrol on SGL 211, I go to SGL 246, near Middletown and park in a secluded observation spot. Long after hunting seasons close, game lands continue to receive a lot of use by the public. Day hikers, nature buffs, bird watchers, or a family on a special outing are commonly found taking advantage of game lands.

Other, much less desirable types of users prompt my attention this day. ATV riders, litter bugs and vandals cast a multitude of abuses upon wildlife areas.

A gentle rain ushers the way for a covering of fog. I begin to doubt if anyone will venture out tonight, but I continue my vigil. My thoughts naturally wander as I pass away the hours, watching and waiting. Thoughts of spring are nurtured by the warm rain, and a chorus of spring peepers accompany the staccato of the rain drops on the roof of my patrol vehicle. Before I leave, I cite some folks for foolishly tossing their beverage containers out on the parking lot, practically under the bumper of my unseen "green machine."

Thornapples



Chuck Fergus

ARURAL ADAGE holds that “God made March to kill cows and old people.” Certainly March can be trying. Neither spring, precisely, nor winter, it tantalizes, then turns and bites: The morning after a day of warmth and sunshine, we cringe next to our woodstoves as wind rakes the eaves and snow pelts the roof.

But the menace of March is overstated. It is actually an excellent month in which to undertake certain activities, none of them especially fashionable or remunerative or significant, but all providing a balm for the winter-weary soul.

Woodcock Dance

The first is watching the woodcock dance. Woodcock winter in the deep South, and although they return to Pennsylvania as early as February, the dance doesn’t really get cranked up until March.

The male woodcock stakes out a “singing ground,” a soggy semi-clear tract of land from which he can fly up into the sky, and then descend, singing his warbling, chuckling, libidinous song. When he lands, he will give a startling, peremptory *peent* for the benefit of any lady woodcock present. The woodcock goes dancing at dawn and at dusk, and it is worthwhile to sneak up on him while he is thus absorbed.

On another March day, go hunting deer antlers. Whitetail bucks shed their

racks in January or February. Once dropped, the antlers don’t last long—rodents gnaw on them for minerals in the tines of bone, and the damp ground fosters deterioration and decay. But many shed antlers should still be around in March, which is the logical time to look, before vegetation starts to thicken and swallow them up.

A friend once found a beautiful set, heavy and symmetrical, four points to a side, pale ivory tinged with brown. One antler lay on the edge of a hayfield, its mate in a patch of brush less than a hundred yards away. (Do bucks tend to shed both antlers at approximately the same time? Or do they drop one and go about wearing the other for a while, feeling lopsided?)

I would be happy to find a nice deer antler in the woods. Even so, looking for antlers is precisely the sort of activity that ought to be undertaken in March because it lets one appear to be productively engaged while actually just soaking up the sights, sounds and smells of the quickening year, walking in the good wild places, the mind freed for any sort of pondering.

Perhaps the most spectacular March event happens when frogs and salamanders congregate at the temporary vernal ponds. Vernal ponds are shallow depressions in the forest floor—fed by snowmelt and rain rather than by underground aquifers, most of them will vanish by the time summer rolls around. All sorts of amphibians breed in these ponds (which can cover a few square feet or as much as an acre) and March is the main month.

Tagging along with a biologist, I visited several vernal ponds one March. Ice still skimmed the margins (water temperature: 48), but the wood frogs, having taken advantage of a week-long warm spell, had already laid their gelatinous egg masses and faded back into the woods.

What we discovered instead of wood frogs were spotted salamanders: black, turgid-bellied brutes, as thick as a hot-dog and seven inches long, with bright yellow spots the length of their bodies

and sinuous tails. In checking 10 ponds, we found a dozen spotted salamanders depositing their cloudy egg masses in the dark clear water—salamanders so big and exotic I thought I'd taken a wrong turn and ended up in the Amazon basin instead of a mountain valley in Rothrock State Forest.

The biologist had never seen such a concentration of spotted, which he referred to as “macs,” short for *Ambystoma maculatum*. He appeared to be somewhat overwhelmed. “You’ll come to one of these ponds,” he said, “and the ravens’ll be flying over croaking, and there’s a rattlesnake den on the ridge and bear tracks in the mud and the sun is out and all around in the woods you can hear this rustling, and it’s the frogs and salamanders coming to the ponds, just like they’ve been doing every spring for God only knows how long.”

Speaking of ravens, I spent three mornings looking for raven nests last March. I see a fair number of ravens performing their acrobatics high in the air over my home. And figuring they have to come down and nest somewhere, I started hiking around, scanning hemlock and pine trees with my binoculars, scrambling all over the only things in our valley that could possibly pass for cliffs, some lichen-plated outcroppings 15 feet tall.

I didn’t find a nest. Or, rather, I didn’t find a raven’s nest: I did locate a horned owl’s sloppy stick pile, and several

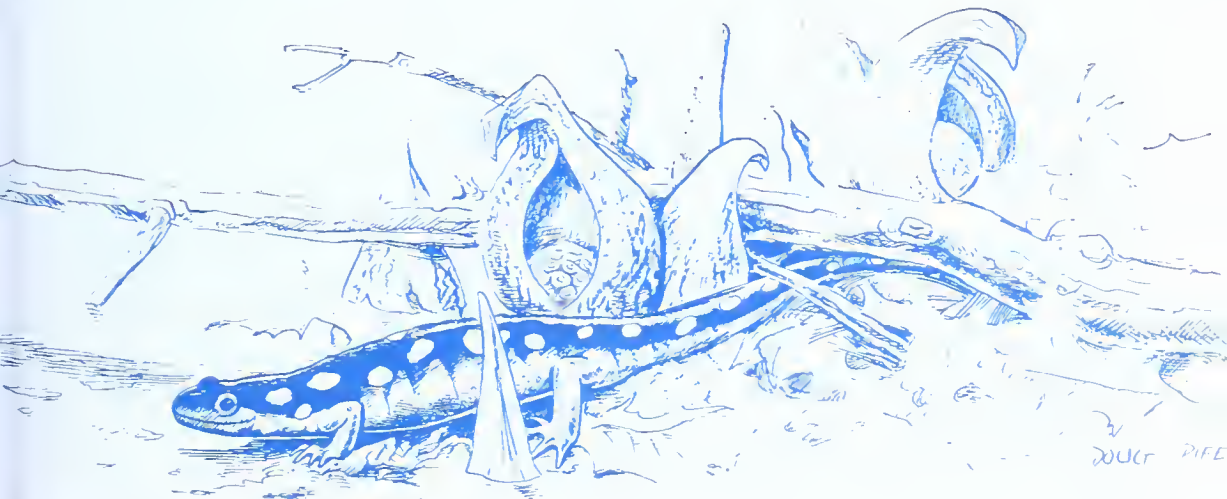
The *Wingless Crow* is a collection of 33 “Thornapples” columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

phoebe cups, not to mention a porcupine napping on a pine limb, and the year’s first vultures rocking northward above the ridgetops.

Recently I visited a state park that really should be seen in March. Ricketts Glenn is west of Wilkes-Barre in northeastern Pennsylvania. Its 13,000 wild wooded acres include a large tract of virgin hemlocks and (the prime attraction) a stream, Kitchen Creek.

Each of Kitchen Creek’s two branches descends some 600 feet in a little more than a mile, tumbling down North Mountain in a series of waterfalls. Charged with March rain and melted snow, the falls are nothing short of spectacular. Twenty-three of them have names (some rather hokey) and they come in many sizes and forms: one is 94 feet tall, another sheets smoothly over a ledge, another breaks into a series of cascades shunting right, left, right, left, down the broken slabs of rock.

The gorge smells of mist, hemlocks, and rotting leaves. The sound of falling





water fills the ears. One follows a stair of native shale, narrow, winding, slippery, constructed in the late 1800s, before the area became a park (and before lawsuits got out of hand) to lead fishermen to the deep trout pools. On the snow-spitting March day that I tramped through Ricketts Glen, I saw only four people on the trail, which can get positively crowded in summer.

March is a good time to clean out bird boxes, cut firewood, transplant tree seedlings, pick up trash along the road—but we're not concerned with productive things, ones so "process oriented," here. Just lying on one's back on a dry patch of ground (if a dry patch can be found) is much more appropriate. Or sitting on a stump, ostensibly listening for wild turkeys gobbling, while basking in the strengthening sun as it beats down on back, shoulders, skull.

My friend Ron took me hunting artifacts this March. It is an exemplary

thing for a March day. We wandered around the perimeter of a reservoir, on dried-out mudflats exposed by the lowered water level, looking for spear and arrow points, adze heads, scrapers and awls left by a people who, I suspect, knew rather better than we do, rushing through our insular, distracting modern world, how to experience spring.

We found some nice fossils (small clams and the like), a really beat-up adze that we left for somebody else, and many flakes of flint that had been chipped away in the shaping of stone tools. A painted lady butterfly attached itself to our party, flitting from Ron to me to Ron again, it seemed to show a preference for Ron, landing on our necks and wrists, licking up our sweat.

The wind ruffled our hair. We turned over rocks with our hickory sticks. Some military jets screamed over, practically clipping the tops of the mountains that hem in the lake. A few other people were out and about, fishing, reading, walking, most of them elderly.

I finally found a bird point, a tiny translucent flint triangle whose edges remained razor sharp but whose tip had been broken. Did a man, 20,000 years ago, shoot an arrow at a grouse along the stream now inundated by the lake? Failing to hit his quarry (I sensed a certain affinity), did he see his arrow shatter against a rock? I like to think it was a March day when he hunted, and he really didn't care that he missed.

Planting for Wildlife

This spring the Game Commission will again offer seedling packets and a specially formulated seed mix for persons interested in providing food and cover for wildlife on their properties. The \$2 seedling packet contains 15 seedlings, three each of white pine, white spruce, Washington hawthorn, American bittersweet and callery pear. All these trees and shrubs are from the agency's Howard Nursery. The seed mix, a 10-pound bag of dwarf grain sorghum, millet, buckwheat, and dwarf hybrid sunflower, is available for \$3. Early sales known at press time are: Game Commission Southeast Region Office, April 8-19, 8 a.m. to 4 p.m.; Bethlehem Church, 345 Game Farm Rd., Schwenksville, April 7, 9 a.m. to 6 p.m.; and Northcentral Region Office, April 6 & 7, 10 a.m. to 2 p.m. Dates, times and locations of other "Planting for Wildlife" sales will appear in next month's issue.



GEORGE ROBBINS, founder of Robbins Scent, Incorporated, initially began to supplement his income as a coal miner by selling attractor scents to trappers in 1950. It wasn't until 1965 that he began selling products for whitetail hunters — the first advertised item was Robbins X-rated Buck Lure. He bought two buck fawns that became the nucleus of a herd that now numbers 400.

Facts behind the . . .

Scent Scene

By Keith C. Schuyler

NOBODY WHO reads archery magazines or attends outdoor festivals designed for bow hunters can miss being subjected to sales pitches for deer scents. At the forefront is Robbins Scent, Inc., a firm that over the past few decades has developed into one that now employs 20 or more people.

The use of natural scents was once primarily the province of gun hunters, but today the market is about evenly divided between gunners and archers.

Considering that bow hunters make up only 25 percent of the hunting population, their interest in these deer hunting aids would appear to be much greater.

Scents used for hunting are divided



among those that purportedly catch the attention of deer and those that mask human odors. Both have adherents and detractors. Climbing sales indicate an increasing number of hunters want to find out for themselves whether such products work.

Personal experiments outlined here ("Scents or Nonsense?" May 1982) did not support some outlandish claims made by dealers selling privately labeled products. In some instances competing products used ingredients obtained from identical sources. At one time, about 95 percent of scent products were sold to dealers, and there was no control over differing, questionable assertions made by those selling the same product. Today the bulk of Robbins' sales are made under the company logo through retail outlets.

Several discussions with company president Linda Robbins Leasher, Connellsville, brought forth frank and revealing information. When asked, "Do you agree with the premise that attrac-

tor scents are useful primarily to bring in nearby animals and position them for good shooting?" Leasher gave an unqualified, "Yes."

There is no way of knowing, with any certainty, from exactly how far properly applied scents might draw deer. They are most effective when animals are in the immediate vicinity. Sexual urge or normal curiosity may then draw them to a planned spot within easy bow range.

Leasher credits the company's initial success to her father, George Robbins, now 76 and retired, who started collecting urine from animals on the small mink ranch he maintained to supplement his income as a coal miner. In 1950, a trapper offered him \$9 for a quart of the mink urine to use as an attractant.

That initial sale got Robbins exploring the commercial aspects of the scent business, but it wasn't until 1965, when a hunter requested a deer scent, that Robbins got interested in whitetails. No scent was available, so Robbins purchased two buck fawns which, as it turned out, became the nucleus for a herd that now numbers 400 animals.

His first advertised deer product was Robbins Scent X-rated Buck Lure, but for the first two decades in the deer scent business, by far the largest amount was sold wholesale to a growing market. There was plenty of work at the site, managing the deer herd and erecting buildings and facilities to collect both buck and doe urine during the mating season.

Today there are five roofed collecting pens measuring up to 30 x 180 feet, a hay shed, six deer pens, one three-story building for storage of three 1600-gallon containers and a number of smaller ones for urine, a warehouse with adjoining office space and a bear pen.

In addition to 325 whitetail does and



LINDA ROBBINS LEASHER now heads the firm, which has grown from a small one-man operation to one that employs about 20 people during peak times. Robbins is predominantly family-run.

75 bucks, the facility holds two mule deer, 75 foxes, two elk, two wild boars, 50 raccoons, two bobcats, 20 coyotes, some 30 birds and rabbits and one huge black bear that weighs about 800 pounds.

These animals, as well as the deer, are expected to earn their keep by doing what comes naturally. Although attractant scents are collected as urine from animals during the mating season, collections are made in other months for what are known as curiosity or fear eliminator scents. The latter scents are intended to create a natural atmosphere and to negate human odors that might alarm approaching deer.

The "X-Rated" scents are those taken from females in the estrus period and from bucks in the rut. For the white-tailed deer, these collections are made from October 15 to February 15. Animals are brought to the concrete-floored holding pens, and urine is collected by gravity feed for storage in the large tanks. From there it is bottled, labeled and packaged for sale.

No additives are used, and amber glass bottles retard deterioration from sunlight. Plastic is avoided because it interacts with the product's natural ammonia content.

On a much smaller scale, urine is also collected from the other animals for hunting, trapping and dog training scents. In addition, a variety of odor eliminating shampoos and soaps, and natural environment scents such as acorns and apples are made available. Even scented bowstring wax is provided. Even though these products are not manufactured by Robbins, Leasher says, "I do take great pains to make sure they are of the highest quality."

Robbins is perhaps the largest purveyor of animal and bird scents in the U.S., and distribution is not confined to this country. Among the foreign markets are Canada, Italy, Spain, Sweden,

Germany, Norway, Australia, Austria and Japan.

A two-acre pen is fenced as a breeding area. Outside breeding stock is not purchased because of the possibility of introducing disease, and no animals are sold. Ten to 15 bucks are used solely for breeding purposes, and it's extremely rare for any disease problems to develop in the herd.

One year, however, to obtain maximum use of the breeder stock, an effort was made to delay breeding until the final estrus period of the does. Unfortunately, all the fawns failed to survive the following winter. The idea was dropped. "Nature's way is best," Leasher concluded.

I was curious about the hazards of handling rutting bucks in relatively confined areas.

"We have had many close calls," Leasher told me, "but only once did anyone get injured. My brother-in-law ended up with several cracked ribs from a buck that had just had its antlers removed. If the buck had had his antlers, my brother-in-law would have been dead," Leasher said. "We know



THE HERD from which whitetail deer scents are produced is made up of 75 bucks and 325 does. In addition, Robbins has mule deer, foxes, boars, raccoons, bobcats, coyotes, birds, rabbits and bears.

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the capabilities of our animals and respect them. We *never* underestimate them.”

To lessen danger to humans—as well as the female deer—antlers are removed from the bucks shortly after the velvet is shed. This does not seem to affect mating behavior.

Providing feed for the deer herd and other animals provides a lesson in logistics. Natural feed on the property is limited by available space. The Robbins concern has followed recommendations of Pennsylvania State University, where experimental deer herds have been kept for many years. George Robbins experimented for years until he finally discovered a dry food with proper nutritional components, and that has continued to be a satisfactory food source.

Generally speaking, the Robbins operation is a family affair. Bert Leasher, 21, has general charge of the animals. He also serves as photographer and took the accompanying photos. His twin, Brian, is in charge of the warehouse and bottling of the urine. Linda’s son-in-law, Chuck Hooper, 24, assists in caring for the animals and collects the urine. Hooper’s wife, Tami, 24, and Kelly Leasher, 19, serve in the office as secretaries. At peak times, August through December, about 13 additional workers are employed.

In 1987, Bill Bynum, a Tennessean who speaks with a decided Dixie accent, was hired as a hunting consultant. He serves today as vice president in charge of sales and promotions. As a lifelong hunter and wildlife observer, Bynum was subject of a Robbins video on the practical applications of deer scents.

The Robbins approach is: “We won’t make claims about our scents and lures being miracle workers. But, when used properly, they will produce dramatic results for any hunter.”

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VARIABLE SCOPES such as the Bausch & Lomb 6-24x offer the hunter unmatched versatility in the field and on the range. From the high magnification necessary for long shots in open country to the wider fields of view helpful in brushy terrain, a suitable variable can handle it all. At one time, variable-power optics came under fire for being less than dependable, being prone to fogging, changes in zero and the like. But modern, top quality variable scopes are no longer plagued by these problems.

Variables vs. Fixed Powers

By Don Lewis

Photos by Helen Lewis

“YOU CAN’T BEAT a fixed low power scope in the deer woods,” a gray-haired hunter said emphatically. “I put a Weaver K 2.5 on my Model 141 Remington in 1952, and when it was damaged in a car accident in the early 1960s, I replaced it with a Lyman All-American 3x. Now I have a Simmons 4x Whitetail. I’ve gotten a buck nearly every year, and that should be plenty of proof.”

“Wait a minute,” a listener cut in. “I may not have killed as many deer as you, but I disagree nonetheless. A vari-

able scope offers a deer hunter more than a fixed low power.”

“All this variable power stuff is hokum. Going from a low power to a higher one does little more than reduce the field of view. And, to make matters worse, a variable is cluttered up with a



bunch of complicated parts. It's not as reliable as a fixed power, and there's a greater chance it will fog. On top of that, you might have it set on a high power when a quick shot at short range is needed. With a small field of view, you're not going to get a shot," the old man responded.

"You can't shoot any better than you can see," replied his adversary. "Maybe all your shooting has been done at short distances or in heavy brush where a low power scope would be adequate. But if you look at it logically, why settle for a fixed power, when a variable, such as a 3-9x, gives a range of powers?"

"And comes apart right when you need it the most," was the quick reply.

I'll not continue with the argument, except to report that over the following 20 minutes, nothing was settled. Each hunter had his own views and presented plenty of testimony to support his beliefs. The sincerity of both individuals in this argument proved to me that this variable-fixed power issue warrants a deeper look. Does a fixed low

power scope have an advantage over one that offers multiple powers?

The old gentleman was partly correct with the implication that a variable power scope is more complex than a fixed power. There are moving parts in a variable, and they are subject to failure from hard use or just time itself. In the early days of the variable power scope, malfunctions were not uncommon. For the most part, today's high quality variables are durable and offer years of hard use.

In the early 1930s, several brands of imported scopes were available to the big game hunter. Scopes such as Hensoldt, Kahles, Oigee and Zeiss carried fixed powers from 2¾x to 4x. Those scopes were expensive and used by relatively few big game hunters, which is easy to understand when it's considered that the cost of an imported scope was nearly twice the price of a good bolt action rifle.

But then Bill Weaver, a Kentucky-born engineer who had a passion for shooting, changed the picture. Being an



VARMINT HUNTERS typically take longer shots than most big game hunters, and they demand exacting accuracy from their rifles and optics. One common misconception of variable scopes is that they change zeros as the magnification is altered, but that's not the case with today's good quality optics, typified by this Simmons 6-20x. Well-made scopes also exhibit good repeatability with respect to windage and elevation adjustments.

inveterate tinker with a special interest in rifle scopes, he experimented with many of the imported brands.

In time, he began building his own, and in 1933 he offered his Model 3-30—for less than \$20. Later, the 3-30 evolved into the legendary Model 330 Weaver, the first widely popular American-made big game scope. Open sights still held center stage in the deer woods, but the advantages of a magnifying sight with a single aiming device was unquestionably better than any two-sight system.

If the early scopes had been free of several demons that plagued them, it's reasonable to assume that open sights would have ridden into the sunset long before World War II. As it was, though, scopes of the 1930s through the 1950s were subject to a variety of maladies, and that created doubts and suspicions that still linger among hunters today.

Fogging, for the most part, was probably the most dreaded demon through the 1950s and '60s. Imagine your reaction if you spied a legal deer sneaking through the woods, and then discovered that your scope was fogged. It's something not easily forgotten, and gnawing doubts about the reliability of

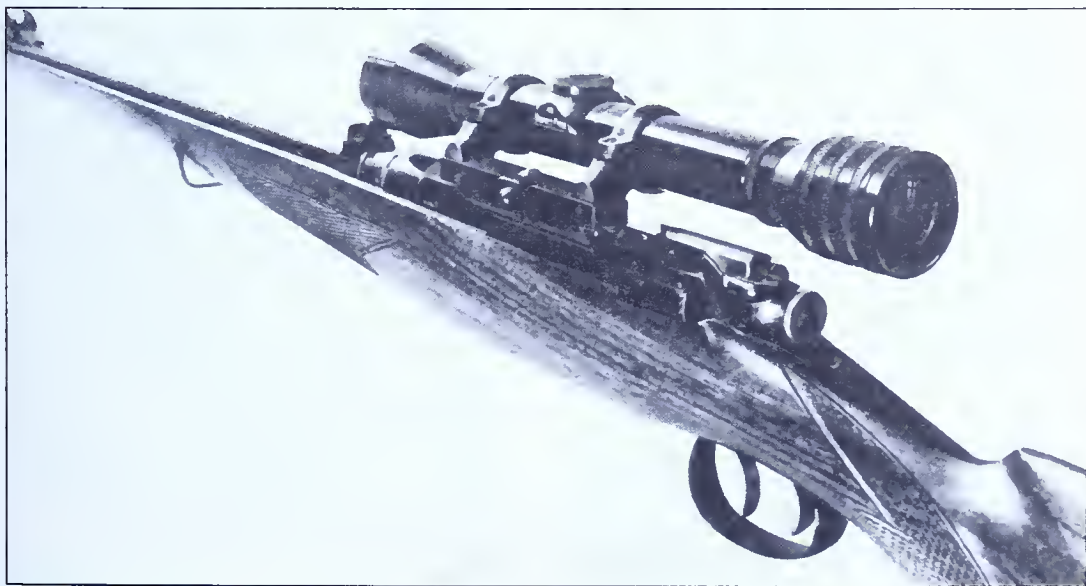
optical sights would always remain.

I have been fortunate as that particular scenario never happened to me, but I listened to countless tales of woe that were directly related to fogging problems. Word quickly spread when it did happen, and it had a disastrous impact on the trustworthiness of scopes. Many older hunters still have a hard time believing the fogging problem is essentially non-existent in today's good scopes.

I have no idea how many brands and models of scopes are on the market, but I do know there can be a good bit of confusion and misunderstanding when it's time to select a new one. Naturally, the first thing that enters the hunter's mind is power. One fellow told me he simply selected a good quality 4-12x. He reasoned that such a scope, with its wide range of powers, was suitable for all types of shooting. While there is some merit in that reasoning, a 4-12x is not the only road to take. Let's take this a step farther.

Very few articles on scopes give adequate attention to mounts and that the mount setup should be correct for the scope being used.

Years back, a customer asked about

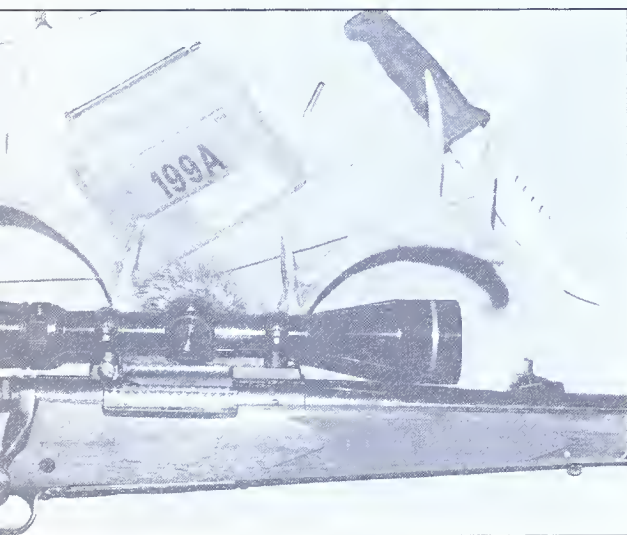


WHILE THERE'S A LOT to be said for variables, fixed-power scopes are certainly not going to disappear from the scene. They are offered in magnifications ranging from 1x rimfire scopes to 36x target models, and can be a more economical choice than their variable counterparts. Fixed 4x scopes such as this Redfield are very popular.



the difference among scope mounts, especially because all American scopes are one inch in diameter. He was thinking only in terms of the rings being the same diameter as the scope. What he and many others don't consider is the spacing between the rings. I wasn't in the scope mounting business very long before I discovered that not every scope worked with every mount, even when the mount was the proper one for a given model of rifle.

For example, on a long action rifle, such as a 30-06 or one of the magnums, a scope with little distance between the bells of the objective and ocular lenses often won't fit because the scope tube is not long enough to fit between the two rings. Sometimes an extension ring will solve the problem, but that's an extra expense that wouldn't have been necessary at the time of sale. Also, if the scope barely fits, it's possible the ocular lens (eyepiece) is so far from the shooter's eye that he sees only a tiny field of view.



Here's another situation. With some one-piece mounts, the spacing between the rings is so short the scope can be moved no more than an inch or so. In this instance, it's not the bell of the objective lens that causes the problem; it's the windage and elevation housing that stops the scope's movement.

Back to selecting a scope, another question that comes to mind is why put a dual purpose scope on a single purpose rifle? Would a 4-12x be practical on a 30-30 Model 94 Winchester or any other 30-30 rifle? What real use would powers above six offer the hunter carrying a 444 Marlin? Such high power scopes with their large objective lenses look out of place on compact, relatively short range rifles. For those and other cartridges, such as the 35 Remington and 32 Winchester Special, which work best in heavy brush, a fixed 1 1/2x or 4x is all the scope that's needed.

The question I'm attempting to shed some light on here, though, is whether a fixed power scope is better than a variable power one. A late friend of mine became a fixed power advocate, and maybe I can explain why. He purchased one of the early, inexpensive import variables and had nothing but problems. When the power was down, the reticle was hard to see; when it was on 9x, the reticle appeared to be the size of railroad ties.

There were other deficiencies, too, but it all came to an abrupt end one afternoon when he cranked up the power and the reticle disappeared. That was too much for him; he never used another multi-power scope.

Those problems are virtually nonexistent today, particularly in the higher grades of variables. While a variable may be more susceptible to failure than a fixed power, it's rare for a variable to fail today.

There's a tendency to think fixed

WITH A GOOD variable such as this Leupold 3.5-10x mounted on an accurate rifle of appropriate caliber, Pennsylvania sportsmen can successfully hunt any of the wide variety of field conditions the state has to offer, and much of the nation as well.

power means low power. That was true years back, when most big game scopes were 4x or less, but not all early fixed powers were low powers. Back in the 1940s target scopes had fixed powers of high magnification. Lyman's Super Targetspot was offered in fixed powers that ran from 10x to 20x.

A strong argument for low fixed powers is the large field of view they normally offer. For instance, Williams 2½x Twilight scope offers a 32-foot field of view at 100 yards. Keep in mind, as power is increased in any scope, the field of view gets smaller.

I have to admit that during the past 10 years I have joined the ranks of the variable power faction. I personally think that on a big game rifle a 2-7x is an ideal setup, although the other variables are certainly fine, too. The variable on my 280 Remington 700 Mountain Rifle is a Model 1066 Simmons 2-7x Presidential scope. Its (large) 44mm objective lens provides a field of view that runs from 55 feet at 2x down to almost 19 feet at 7x.

The argument that it's normally easier to find game in a large field of view can't be challenged. However, there are many instances when being able to crank up to a higher power will show the hunter a better view of his target. On a dark rainy afternoon, I was watching a crossing in heavy timber. I had a Bausch & Lomb 2½-10x cranked to its lowest power, ready for a close range shot. Deepening shadows and a pouring rain forced me to start for home before quitting time.

While I was taking a breather from the uphill climb, I spotted a standing deer on the opposite hillside. Resting the 280 against a tree, I instantly found the deer in the large field of view. The deer looked small and dark in the large field of view and I couldn't see a rack, but when I cranked the B & L up to full power I instantly spotted antlers. Another hunter spooked the buck before I could shoot.

I admit, it would have been more difficult to find the deer in the 10-foot field of view on the 10x setting, but I

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would have seen antlers immediately and probably would have had time to take a shot.

As there are dozens of variable power scopes now on the market, confusion abounds over which one to buy. My only advice is to stay clear of the bargain priced jobs. A variable power scope is a sophisticated optical instrument. It is complex and expensive to build, which is, of course, reflected in the price tag, but the extra dollars for a good quality scope are worth it. Give heavy consideration to a duplex-type reticle, and then have a gunsmith install the scope as low as possible on the receiver in a good mount setup. In the end you'll have a sighting arrangement that will please you for years.

In the wind

j. scott rupp



The endangered Mount Graham red squirrel faces possible extinction in the wake of an October court ruling. The National Wildlife Federation and other conservation organizations filed an emergency motion with the Ninth Circuit Court of Appeals last September to stop the University of Arizona from constructing an observatory on Mount Graham—the squirrel's last remaining habitat. But the decision was reversed on an appeal by the school, and it was granted permission to bulldoze the area. The first tree fell within 24 hours of the ruling.

Arizona's game department has instructed hunters to keep their eyes open for "eco-terrorist" activities while afield. Recent publications from an extremist group, Earth First!, showed its followers how to kill cattle and make it look like the work of sportsmen.

Research indicates 75 percent of typical Florida Everglades habitat has been lost due to man's efforts to control his environment. According to a University of Florida professor, some areas are kept dry for agriculture or development while others are kept wet for water storage. "The middle ground, which is better for birds and animals, has been lost."

The tearing down of the Berlin Wall, and the removal of patrolling guard dogs in West Germany, brought an invasion of rabid foxes to West Berlin. Since the wall came down, 37 rabid animals have been found in the city, and about 10 people have been bitten. The rabies outbreak prompted police to issue warnings over radio and by loudspeakers from vans.

Statistics gleaned from an Idaho game department survey shoot holes in the stereotypical image some hold of hunters. The top reasons Idahoans hunt deer are to experience nature, view wildlife, create pleasant memories, get away from hassles and learn the land. When asked what creates a quality hunting experience, the state's hunters listed, in order, spotting rare or unusual animals, hunting on land for which one has a special attachment, encountering no one else and hunting roadless areas.

Nancy Howe, East Dorset, VT, recently became the first woman to win the federal duck stamp art contest. Her painting of a pair of king eiders will be featured on the 1991-92 Migratory Waterfowl Stamp.

The failure of aspen trees to regenerate as they should is causing some concern in Michigan. If aspen, a prime wildlife food source, is allowed to wither and die, it is replaced by less desirable species. Clearcutting or controlled burning is traditionally used to invigorate aspen forest, but a number of factors, including overbrowsing by deer, raised water tables due to logging, time of year logging takes place, and the age and health of the aspen cut, seem to be combining to reduce the success of aspen reforestation.

A virus discovered last winter in Virginia woodcock may be partly responsible for the species' decline over the past 20 years. Reovirus—a common disease in domestic poultry—inhibits absorption of nutrients, which causes emaciation, respiratory problems, stunted growth and arthritis. Biologists are unsure whether winter stress makes the birds susceptible to a latent virus or whether woodcock catch the disease after being stressed by cold weather. Virginia biologists have been testing a wintering population for the presence of reovirus.

Answers: 1—(T) black-billed cuckoo, 2—(C) Canada geese, 3—(C) great blue heron, 4—(C) red-winged blackbird, 5—(T) broad-winged hawk, 6—(T) purple martin, 7—(C) house wren, 8—(C) robin, 9—(T) osprey, 10—(T) scarlet tanager



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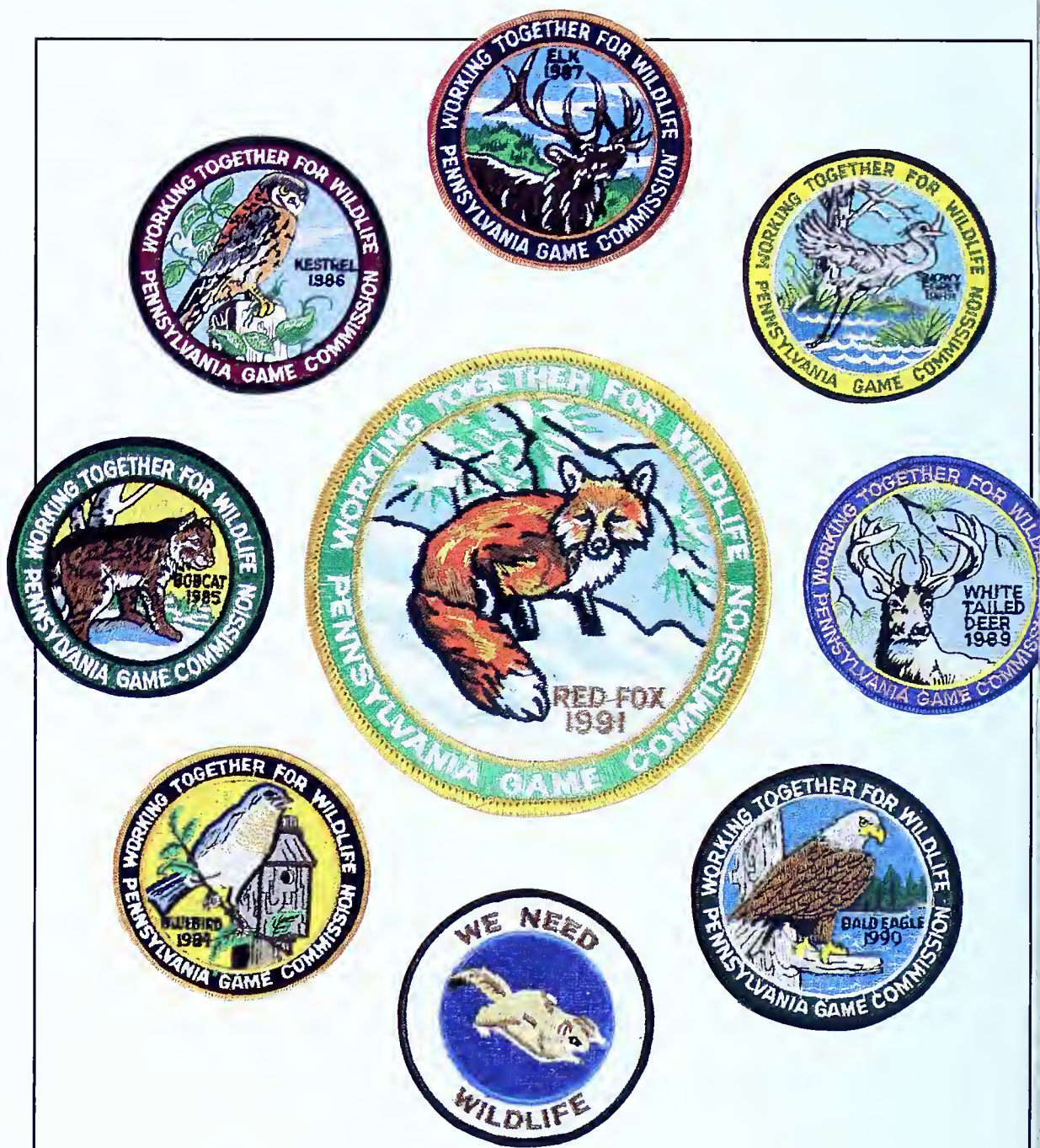
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APRIL 1991

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GERALD W. PUTT



Working Together for Wildlife patches have proven to be extremely popular over the years. The first two in the collectible series, the osprey and river otter, issued in 1982 and '83, respectively, sold out quickly, and supplies are limited for the remaining patches. Funds derived from the sale of WTFW patches—and fine art prints—are used to support nongame wildlife research and management programs. Patches cost \$3 each, delivered. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

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FEATURES

One Spring Morning 3
By Doug Stetler

Long Hunt for a Short Beard 6
By Bob Yoder

Small Game and the Great Horned Owl .. 11
By Jerry Hassinger

Little Guns for Big Game 17
By Dr. George E. Dvorchak, Jr.

Courtship Quirks of Woodcock 21
By Lincoln Lang

End of the Trail 25
By Mike Raykovicz

Boxful of Squirrels 29
By Eric Patnychuk

NEWS

Field Notes 34

Conservation News 39

In the Wind 64
By J. Scott Rupp

COLUMNS

Saying Cheese (Another View) 41
By Linda Steiner

Outdoor Wildlife Learning 43
By Bill Einsig

WCO Diary 45
By Keith Snyder

Thornapples 50
By Chuck Fergus

Fun Games 52
By Connie Mertz

GAMEcooking Tips 53
By Carol Vance Wary

Anti Archers (Archery) 55
By Keith C. Schuyler

Handloading Facts (Guns) 59
By Don Lewis

COVER PAINTING BY GERRY PUTT

(Cover Story on Page 58)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. **CHANGE OF ADDRESS: POSTMASTER:** Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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Ten Lifesavers

LAST MONTH's editorial dealt with turkey hunting accidents and the options being considered by the Game Commission to make the sport safer. This month I'd like to address the safety aspects of the sport. Just what, if anything, the commissioners decide at their April meeting was not known at press time, but a decision of some sort will likely have been made by the time you read this. Nonetheless, with the spring gobbler season upon us, here are 10 turkey hunting safety tips developed by the Hunter-Trapper Education Division:

- Positively identify your target. Be absolutely certain what you're shooting at is a legal turkey before pulling the trigger. Also, be sure your line of fire to the bird and beyond is safe and clear.

- Make your position known to other hunters. Wear fluorescent orange when moving through the woods, particularly when carrying a bird. Then, to alert other hunters of your calling location, display orange, such as the safety alert band available from the Game Commission.

- Never stalk a turkey or turkey sound. Sounds or movements you think are being made by a turkey may actually be those of a person. Be patient, get settled, and then try to call the bird to you.

- Assume every noise and movement is another hunter. If you have any doubt whatsoever that what seems to be a legal turkey really is one, don't shoot.

- Protect your back. Before calling, select a stand where you can place your back against a large tree, rock or other substantial natural barrier. It's also a good idea to hunt in open woods, not thick brush.

- Shout "Stop!" to alert approaching hunters of your presence. "Stop," it's been learned, is the most effective word for safely attracting another hunter's attention in a hunting situation. Never move, stand, wave or make turkey calling sounds to alert another hunter.

- Do not wear any clothing with even the slightest amount of red, white or blue. Those are the colors on the head and neck of mature gobblers, and have been known to attract shots from careless shooters.

- Preselect a zone of fire. Select an area where you will limit your shooting and then shoot at a turkey only when it's in that predetermined zone—and only when you're certain it's safe to do so.

- Choose safe and ethical hunting companions. Refuse to hunt with anybody who doesn't obey game laws and the rules of safety. Furthermore, know where your partners are at all times. Hunt defensively and be on the alert for those who don't.

- Practice courtesy and self-control at all times. Observe all written and unwritten rules of safe turkey hunting. Good hunting habits prevent accidents.

Again, despite what regulatory changes are implemented to address turkey hunting safety in Pennsylvania, nothing will ever be a substitute for safe and ethical conduct on the part of each of us. So this spring, while afield, be sure, be safe and be seen. — *Bob Mitchell*



I WAS HOPING to locate a gobbler's regular roosting site for the upcoming hunting season and then try to pattern his movements. I suddenly felt like I was being watched, and when I looked up I saw a very large turkey silhouetted against the moonlit sky. He was not more than 60 yards away.

One Spring Morning

By Doug Stetler

I CAREFULLY CLOSED the truck door and then took a moment to enjoy the cloudless, starlit sky. Surveying my surroundings, I was glad the moonlight was there to help me try a quiet stalk into the dark forest.

I was hoping to locate a regular roosting site of a gobbler for the upcoming hunting season and then try to pattern his movements. For the past week, gobblers in this area had been busy gathering hens, chasing them in and out of hollows and across fields, from one woodlot to the next. They didn't seem to have any specific roost site.

Adding to the problem were other scouters who were not satisfied to just slip around in the forest and locate gobblers by their mating calls, scratchings, lost feathers and droppings. They had

to practice their calling, which would either educate the big birds to the sounds of artificial turkey calls or entice them in.

This causes gobblers to become call-shy, through association with sounds from hens that never show up. And many times a gobbler's periscope head peeks over a hump on the forest floor and easily identifies a moving scouter—who never realizes the turkey has seen him because he doesn't conceal himself or spend enough time at the calling location.

Quietly moving through the forest on deer trails, I soon reached the head of a hollow where three days earlier I had found fresh scratchings and wing feathers. I realized I had to get away from the deer trail before one came up and



I WAITED until he faced down the hollow, his partially fanned tail blocking his vision, before I reached in my pocket to purr on my turkey call. The gobbler responded by snapping to full strut.

But he appeared to be watching me very closely again. So I remained motionless, confident as a fox who had just broken into a chicken coop. My hands, face and gray hair were completely covered now, and the woodland camo pants and coat would help me remain a part of the forest.

The turkey suddenly made a very soft gobble, and every hair on the back of my neck stood straight up. It really *was* a gobbler. I calmed my nerves and inched back the cuff of my glove to read my watch: 5:25.

The gobbler started “dancing” back and forth on his limb, lowering his wings and fanning his tail feathers in a half-strut. He would periodically stand on one leg, the other raised up under his breast. He turned away from me, and I was treated to another surprise. His long beard swung around and touched the limb on which he was standing. With an 11- or 12-inch beard and no other gobblers challenging him, he just had to be the boss. He didn’t gobble again but occasionally would make quick, soft clucks. Everytime he changed position on the limb I could plainly see his long beard swing out from his chest.

Yelps from a diaphragm call sounded in back of me, on top of the ridge. The gobbler paid no attention to the calls but continued to cluck softly and look for hens. Eventually the continual yelping from the ridgetop put a stop to his barely audible clucking.

At 5:42, (legal shooting time in season), with the sun yet to make its appearance above the horizon, the gobbler was still dancing on the limb. Fearing that he might still gobble at the diaphragm yelps or some other noise and give away his position, I had to try something to get him on the ground where he would be less likely to gobble. Aware that his 270° vision would easily spot me, I waited until he faced down

alarmed every forest creature within hearing distance. I started slowly picking my way across the hollow, taking only three or four short steps at a time.

Reaching a stand of tall pines bordered by hardwood trees, I began moving at a faster pace on the soft pine needles when I suddenly felt like I was being watched. I looked up. Less than 60 yards away, up in a tree, stood a very large turkey, wide awake and silhouetted against the moonlit sky.

Although I couldn’t see a beard, I figured it was a gobbler because its legs were so long. I knew I couldn’t just stand there till it got light enough for the turkey to know what I was. I had to hide; if the turkey spooked, it would be through my carelessness. So I quietly moved, in super slow-motion, about six feet and sat down behind two small trees—the dark form still looking down from its perch.

After five minutes the turkey finally ignored me and began looking around. I could easily see him and knew he would identify me as soon as the morning light crept into our little forest niche. I took another chance and reached into my pocket, pulled out my camo net gloves and slipped them on.

After a few more minutes I pulled the headnet out of my coat pocket. I took off my glasses and attached them to a special device on my headnet, then put my glasses on and pulled the net down over my head. I couldn’t believe that he was still there.

WITHIN MINUTES, yelping came from what sounded like a box call down in the hollow. Then I heard the turkey putt, followed by the sound of his wings crashing through the treetops.

the hollow and his partially fanned tail feathers blocked his vision.

I reached down and lightly purred on the Penn's Woods Lucky Clucker still inside my pocket. I could barely hear the soft purrs coming from the call, but the gobbler responded by snapping to full strut. After about 15 seconds he came out of his strut, turned and faced me. He stretched his long neck high and started looking for the hen he thought was close by on the ground.

He went into full strut again, but only for a moment. Then, with a soft swish, swish, swish, he floated down to the forest floor, landing only a few yards from me. He immediately went into full strut again, all the while purring so softly that if I'd been another three yards away I'd never have heard it.

I was expecting to hear him "spit and drum," but I think he was too afraid to make calls louder than the scarcely audible purrs. After a minute of strutting, he raised his wings and lowered his tail, looking around with that outstretched head and neck that never seemed to stop moving. He quickly spied my motionless shape and gave me the once over. Then he turned away unalarmed and slowly walked down into the hollow, away from the diaphragm caller behind us. The other scouter continued to "yelp, yelp, yelp," in the same dead rhythm and tone.

I remained motionless, hoping to catch some hens on their way to rendezvous with the gobbler. However, within minutes, yelping came from what sounded like a box call down in the hollow. Then putt, putt . . . putt-



putt-putt-putt, and the sound of wings crashing up through the treetops. The gobbler had again learned of man's presence in his spring woods.

Relaxing, I sat for a moment and thanked God for the performance that the gobbler had, unknowingly, just shared with me. I had just spent a magnificent, once in a lifetime, daybreak with one of nature's craftiest creatures and watched his morning unfold. No, I had not carried a gun or taken the gobbler, but I will remember this morning and replay it in my memory for a long time. I learned more by observing the gobbler than by calling him down at shooting time and killing him.

The actual harvest is a wonderful climax to the end of any hunt, but a much more rewarding part is being able to blend into nature and observe one of its creatures. Close encounters like these will never be forgotten, especially when one experiences them like I did, one spring morning.

Thoughts While Walking

Nature teaches more than she preaches. There are no sermons in stones. It is easier to get a spark out of a stone than a moral.

—John Burroughs

Long Hunt for a Short Beard

By Bob Yoder

HUNTING HAS long been a passion for me. When I was a young fellow I would roll out of bed before the sun was up and spend an hour or so before school kicking the bushes for rabbits in the fields near our house.

That was 40 years ago. And since then other small game, deer and groundhogs have kept my guns busy. Two years back I took up turkey hunting, and I am still telling anyone who will sit still for a few minutes about the day I bagged a 21-pound gobbler—my first and, so far, only big bird.

I had been interested in the sport for several years, but opportunities were nonexistent in Chester County. I loved to hunt in the mountains of Perry County, but my limited vacation time was reserved for deer season.

When a change in my employment situation gave me more time to hunt, it wasn't too long before I decided to go after a turkey. For more than three years I had read every article I saw on turkey hunting. Several particularly helpful stories had appeared in *GAME NEWS* and other sportsmen's magazines.

Also, long conversations with John Smucker, a new friend and veteran turkey hunter, got me psyched. Finally, in the fall of 1987, I made a couple of tentative forays after the big birds. Those trips gave me practice at looking for turkey sign, but not much else. I always came home with more questions for John.

By the spring of 1988, though, I was ready to make a determined effort to bring home a turkey. On the day before the season, I packed my gear and, with a nephew, set out on the 90-mile drive to Perry County and the cabin of my longtime friends Jim and Carol Harvey.

The cabin, which sets along Sherman's Creek, is a wonderful rustic place to escape normal, busy routines, and it

holds many fond memories for me. For 15 years or more I've shared the camaraderie of the men, my son included, who gather there each year for the first days of buck season. When the children were little, our family spent short summer vacations there, hiking the adjacent mountains, fishing the trout streams, splashing in the creek on hot afternoons, and spotting deer after dark.

At other times, I've gone there to help with maintenance and improvement projects. Several years ago, for example, I helped Jim and some other friends put on a new roof, and after last summer's flood we pulled up and replaced the carpet.

From the cabin, it's only a short drive to the 90,512-acre Tuscarora State Forest, an ideal area for turkey hunting. I usually hunt the area between the Rising and Conococheague mountains, where tall evergreens and thick groundcover abound. Shearer Dug Trail, Twig Trail and Bryner Road are three of my favorite haunts.

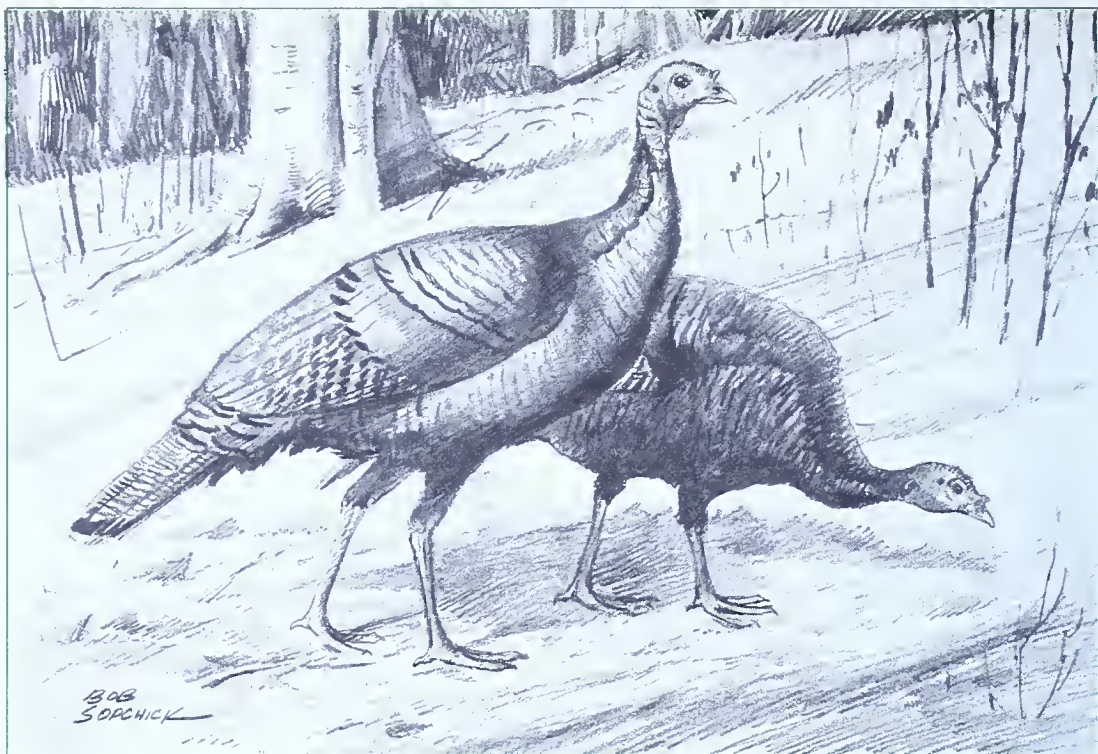
My only reward on that first excursion of the 1988 season was a long-distance glimpse of black feathers and feet streaking over the last bench toward the safety of thick grapevines and boulders. Return trips that spring were uneventful, but that one quick sighting was encouragement enough to draw me back in the fall.

On the first day of the fall season I carried a box call handmade by a neighbor and fellow hunter. From time to time, as I picked my way through the dry leaves in the Bryner Road area, I set up with my back against a big tree and used the call. After an hour I settled down in a stand of tall pines and called several more times.

Most surprisingly, after a few minutes I spotted two hens approaching quietly from behind, through some brushy



BOB
SOPCHIGIL



AFTER A FEW MINUTES I saw two hens approaching quietly from behind, through some brushy growth along the edge of the pines. They spotted me and fled before I could get my gun into position, but I wasn't disappointed. In my first fall season I had finally seen turkeys within shooting range.

growth along the edge of the pines. They were so close that before I could raise my gun into position, they spotted me and fled. I was hardly disappointed, though. I was tickled pink to have finally seen turkeys within shooting distance.

The close of the fall season found me still with an unfilled tag, but already plotting strategy for the upcoming spring season.

By spring I was ready to get a turkey, but early efforts were disappointing failures. On one occasion, Jim and my nephew accompanied me for a couple of days. To enhance our chances, we scouted every day, using owl calls shortly before dusk to locate gobblers on roost. Our scouting efforts were amply rewarded one morning when we heard four or five gobblers high on Conococheague Mountain, but none of them could be called into gun range. It seemed we couldn't compete with the hens for their attention.

Another time, a faint gobble sounded about half a mile across the mountain. I

closed with him until we were about 200 yards apart, but I was stopped short by a "No Hunting" sign—end of story.

All too soon there were only three days left. Being persistent—some say stubborn—I had to make one more tour of the areas where I had seen or heard turkeys. I gathered my gear, and Wednesday afternoon I set out for New Germantown, this time alone and very determined.

I arrived in time to scout the Bryner Road area. Thursday and Friday I was in the woods from before daybreak until the close of the hunting day and spent several hours in the afternoons and evenings looking for scratchings and droppings. The results of both days were the same: neither sight nor sound of a gobbler.

Before I headed back to the cabin Friday evening, I stopped to see John Hoover, a farmer with whom I'd recently become acquainted.

After I told John my hard-luck turkey stories, he told me that just the week before his son had seen a large turkey

in their hayfield near the base of Conococheague Mountain. John graciously gave me permission to hunt on his land, and I promised I would be there about 5 o'clock the next morning.

I later stopped at the home of Ben Bowers, whose land adjoins the Hoovers'. Although his property is posted, he gave me the go-ahead for Saturday morning. I felt privileged, and for the next couple hours I scouted around the fields and the side of the mountain. I saw several deer and heard some owls, but the turkeys, if there were any, still eluded me and didn't respond to the owls. But no matter—with the special permission to hunt private property, I went back to camp feeling pretty optimistic about the next morning.

Before turning in early Friday evening, I set the alarm for 4:30 and started to place it beside the bed. Then I remembered that each morning the temptation to hit the alarm and go back to sleep had been greater than the morning before, so I moved the clock out to the dining table.

I didn't feel so confident Saturday morning when the alarm went off. I just felt groggy and wanted nothing more than to stay in that warm bed and snooze. The alarm kept clanging away, however, until I stumbled out and shut it off.

I stood by the table a moment, trying to convince myself there weren't any turkeys anywhere in Perry County. I thought of the disappointing scouting excursions of the three afternoons and evenings before. Those thoughts were too much to deal with before dawn, so I slid back under the covers and tried to go back to sleep.

I couldn't do it. Getting a turkey wasn't important right then, but my reputation as a hunter was. I had told the Hoovers and the Bowerses I would be in the woods early, and my sense of responsibility nagged at me until I finally rolled out of bed for the second time that morning and headed to the kitchen for some breakfast.

After I ate, I dressed in a camouflage

TURKEY HUNTERS: Don't forget to report your birds. Harvest report cards are due within ten days of killing a gobbler. If you've already used your report cards, mail to the Harrisburg headquarters a post card with your name and address, license back tag number (including letter) and the date, county and zone of kill.

suit and slipped a wooden box call into the big front pockets, along with some shells for my 12-gauge Winchester Model 1400. I carried lightweight, dark brown cotton gloves and a camouflage headnet.

I parked the car at the edge of Hoovers' hayfield just minutes before daybreak. It was cloudy and quiet. Too tired and discouraged to do more than go through the motions of hunting, I turned away from the field and mechanically followed a trail that led to a dense growth of pines about 300 yards up the mountainside.

Soon after entering the pines, I was surprised by an unmistakable, vibrant gobble behind me, not far from where I had been only 20 minutes before. The sound was rejuvenating. Suddenly, hunting was wonderful again.

I knew from my scouting that sticking to the trail for a while would put me just where I wanted to be—about 150 yards to the left and directly above the tom. Before long the path crossed a small stream and I slowly picked my way downhill in the soft earth near the water. The turkey's frequent gobbling helped home me in.

After a half-hour of following the stream, I came to an old logging road with a high bank between me and the bird—an ideal spot. I selected a large tree, sat down and prepared for the last act of the drama: Could I prove myself as a turkey hunter?

I pulled the call from my pocket, sounded a few quiet clucks, and was rewarded with several vigorous responses. For the next 45 minutes I played hen music on the box call, and



I PARKED the car just before daybreak. It was cloudy and quiet. Too tired and discouraged to do more than go through the motions, I followed a trail up the mountain. I was surprised by an unmistakable, vibrant gobble behind me.

cally searched for the telltale beard. Then I saw it; it wasn't much, but it definitely made him a legal bird.

Before me stood the culmination of my efforts. I had never seen a gobbler within shooting distance before, and this one was only about 30 yards away.

I avoided making eye contact with the tom as I waited for an opportunity to bring my gun into position. His head went behind a tree, and I quickly lifted the Winchester and aimed just to the right of the tree where I expected his head to appear.

Just as I got into position his head and neck came out from behind the tree, affording me a good shot. He went down with the first blast, but I fired again for insurance. I ran to the flopping bird and was surprised at the strength of his wings as I pinned him to the ground. After he was still, I picked him up and realized he was quite a large bird, but I had to look closely to see his unusually small, 1½-inch beard. It wasn't long before I named him "short beard."

John Smucker told me a 21-pound bird should have a nine- to 11-inch beard. He explained that during the winter, snow and ice can build up on the beard, making it brittle and sometimes causing it to break off. It seemed a likely possibility in this case.

I was elated. I showed the bird to both the Hoover and Bowers families before starting home, and on the way I stopped at several friends and relatives to show it off. I even crashed a wedding reception so I could show it to Jim Harvey. Jim is always happy when someone who stays in his cabin bags game, and I knew he'd want to see this gobbler, the first turkey taken from the Harvey cabin.

I had spent more than 100 hours scouting and hunting before getting my first turkey, but the thrill of success was worth every minute.

the turkey continued to answer. When he seemed to be approaching, I held my breath in anticipation; when he seemed to be moving away, I grew tense with apprehension.

The road bank effectively shielded me from his ever-alert and searching eyes, and as my excitement grew I was strongly tempted to peek over the bank for a look. It was a strain to be patient and wait for him to show himself, but I managed to contain my eagerness and wait.

There was a low ridge to my right and I expected him to approach from that direction, where he could sneak to the rise and stretch his long neck over the top in search of his mate. But I also kept an eye on the more open area to my left. Finally, I gave a couple of very quiet clucks and slipped the call into my pocket. He was close. After a few moments, the bird treated me to a full body view as he stepped cautiously into the open area. He appeared to be a fine gobbler, but I couldn't see a beard. He had stopped gobbling and was walking along, looking from side to side. I franti-

Are Owls Causing a Decline in Farm Game Species?

No, the author says, the fundamental problem is habitat destruction.

Small Game and the Great Horned Owl

By Jerry Hassinger
PGC Biologist



Leonard Lee Rue II

IT'S NOT UNCOMMON to hear sportsmen complaining about a lack of small game, especially at the end of a hard—sometimes less than successful—day of stomping through fields and briar patches. And as hunters gather in game lands parking lots, it's not long before someone brings up the subject. "It's all these hawks and owls we got," one will say. "Them great horned owls are knocking the stuffing out of our rabbits and pheasants."

That sentiment, while not unusual, is misguided. The first installment of this two-part article will take a look at the habitat changes that have occurred in the last two decades, and how those changes have affected farm game species. The second part will focus on predators—namely the great horned owl—and their influence on our small game populations.

The Federal Migratory Bird Treaty

Act of 1972 effectively eliminated the legal "taking" of all raptors (hawks and owls). Taking is defined as "pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting or attempting to do so." That same year, the insecticide DDT was taken off the market and its use in the United States was prohibited.

Rescuing Raptors

Those and other actions were initiated to save bald eagles, peregrine falcons and other raptors from possible extinction, and to prevent further declines of other species.

Although the success of those actions has obviously gone a long way toward reestablishing raptor populations, some people believe the blanket protection granted all hawks and owls since 1972 has contributed to a decline of some farm game species. The principal play-



MODERN AGRICULTURAL PRACTICES have turned a lot of once-prime small game habitat into barren and desolate landscapes during much of the year. Pheasants are especially affected because they lose valuable nesting sites and are exposed to added winter predation as they travel between acceptable food and cover sites.

ers in this scenario are the great horned owl, ring-necked pheasant and cottontail rabbit.

Putting the role of predation into perspective requires an overview of predator and game population trends against the changes in farmland habitats.

Game Commission Surveys

Since 1971 the Game Commission has been annually surveying thousands of hunters following the close of small game season. This survey, the Game Take Survey (see February, p. 41) was augmented with an Upland Wildlife Trend Survey in 1982. The Upland Trend survey is composed of 360 randomly chosen 10-mile routes, and it begins in July or August. The same routes are driven under similar conditions each year, two per day per PGC wildlife technician. Data from the Game Take and Upland Trend surveys are the best statewide indices of rabbit and pheasant population trends we have.

Rabbit Populations

Game Take Survey data show the

average harvest of rabbits per hunter was 2.68 in 1971 and 3.76 in 1988. In all, hunters were more successful in 1988. The overall statewide rabbit harvest is down, however, because the total number of rabbit hunters has declined by 43 percent, or 326,000 hunters. Fewer new hunters, fewer pheasants (as an added attraction), fewer "easy" field rabbits, more "no trespassing" signs and Safety Zones, and the increased participation in fall turkey hunting have affected the popularity of rabbit hunting.

Rabbit numbers have fluctuated from year to year, according to Upland Trend Survey results, but there is no noticeable trend (Figure 1). A substantial portion of roadside rabbits are within Safety Zones. This type of "backyard habitat" is increasing, often at the expense of land once available to hunters. There have been spot-declines of relatively easy-to-harvest field rabbits on prime farmlands, but no overall decline of rabbits since 1972 has been demonstrated.

With fewer hunters after roughly the same number of rabbits (comparing data for both surveys, where possible) a

Rabbits and Pheasants Seen On Upland Trend Survey

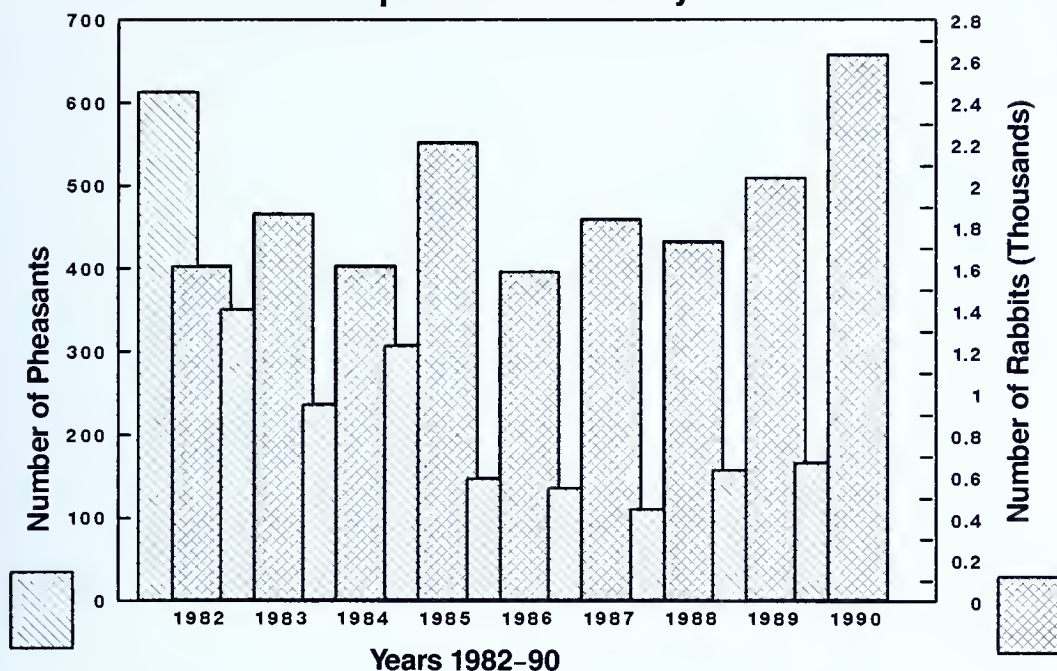


FIGURE 1. Rabbit numbers have fluctuated from year to year, but there is no noticeable trend. Cottontails are increasingly found in “backyard habitat” (Safety Zones, standing crops and the like) and are sometimes not as accessible to hunters as they once were. The decline of Pennsylvania’s pheasants is mirrored by other states across the nation.

higher harvest rate per hunter in 1988 would be expected. The remaining rabbit hunters are probably more efficient, so an increasing harvest rate does not necessarily mean there are more rabbits.

Today, on most working farms, the only cover available to the rabbit is standing crops (which hunters may not enter), a groundhog hole, and—increasingly—Safety Zones. Rabbits in those situations are part of the whole population but are not very accessible to hunters. Overall, declines in the number of rabbits found on cropped and pastured acres have probably been more than offset by population increases in “backyard” (Safety Zone) areas.

There is no evidence to support claims that hunters or other predators are adversely affecting the statewide rabbit population. Good habitat still supports good rabbit hunting; hunters willing to bust brush and briars, and having access to such habitat, can still bag rabbits.

Pheasants and Degrading Habitat

Pheasant populations nationwide have been in a prolonged decline. Between 1957 and 1977, most states experienced drops of about 80 percent. Ohio hunters saw their birds decline by 96 percent. Books have been written on the subject, and there’s universal agreement as to the causes—none blaming predators, per se.

In Pennsylvania, the average annual harvest fell from 1.41 birds per hunter in 1972 to 0.95 in 1988. Discouraged by less access, standing corn through much of the small game season, or by fewer sightings of birds, hunter participation during these years dropped from 62 percent of all hunters to 37 percent. Total estimated statewide harvest of ringnecks dropped about 70 percent during that time period, to 406,796 birds. Studies have indicated that more than 90 percent of the pheasant harvest was composed of wild birds; the decline that most hunters have noticed is that of wild ringnecks.

Observations by wildlife technicians

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along Upland Trend routes substantiate the multi-year decline reflected by the Game Take Survey. Data in Figure 1 show a 73 percent decrease in wild pheasants seen from 1982 to 1990. There are a number of possible reasons:

1. **Loss of farmland to other uses.** A 1975 DER report noted that from 1940 to 1974 the state's farmland decreased from about 15 million acres on more than 180,000 farms to about 10.5 million acres on 74,000 farms. Lancaster County alone lost nearly 100,000 acres of agricultural land to human development from 1940 to 1970. In other words, Lancaster County lost the 20,000 to 30,000 pheasants those acres could have supported.

In 1986 the National Wildlife Federation reported that the state lost "... 1.3 million acres of its farmland and currently is losing 60,000 acres to development." A September 1987 article in the *Harrisburg Patriot News* declared the state was losing 90,000 acres of farmland each year. And a 1986 report by the Pennsylvania Agricultural Statistics Service claimed the state's farms and farm acreages had decreased by 24 percent and 19 percent, respectively—leaving a total of 56,000 farms encompassing 8.5 million acres.

Result: Every day there is less pheasant habitat.

2. **Conversion of marginal, poorly drained, and set-aside acres to cropland.** The Census of Pennsylvania Agriculture reports that from 1969 to 1978 "harvested" cropland actually increased from about 3.7 to 4.3 million acres as farmers "... used higher portions of their land holdings for cultivation and production and have reduced their acreage allocated to marginal uses."

Result: Pheasant cover and nesting habitat is lost as wet meadows are drained and old fields are cultivated.

3. **Increased field size and loss of fencerows.** Farm size is indirect evidence of this. The USDA Economic Research Service reports that since 1950 the average acreage of a Pennsylvania farm increased by 64 percent from 91 to 149 acres per farm. Field size has increased to accommodate larger machinery.

Result: Less interspersed food and cover. More exposure of remaining pheasants and rabbits as they travel between food and cover.

4. **More acreage devoted to row-crops such as corn and soybeans.** Corn and soybean acreage, as a percentage of farmland coverage, increased from 13 percent in 1970 to 22 percent by 1986.

Result: This 9 percent, 545,000-acre increase is at the expense of pheasant nesting habitat, and contributes to barren winter landscapes and fragmentation of remaining coverts.

5. **Fewer acres devoted to winter small grains and hay, and improved plant varieties result in earlier mowing.** Winter wheat and barley provide relatively safe nesting cover for ringnecks. Acreage in these small grains has declined by 61 percent (438,000 acres) since 1960.

Although hay acreage has remained stable for the last 20 years, there are now more tame-hay sites such as alfalfa that are low in structural diversity and high in disturbance. New varieties of alfalfa have resulted in earlier and more frequent mowing, disastrous for grassland nesting birds.

Pennsylvania Expenditures on Pesticides and U.S. Pesticide Production (all types)

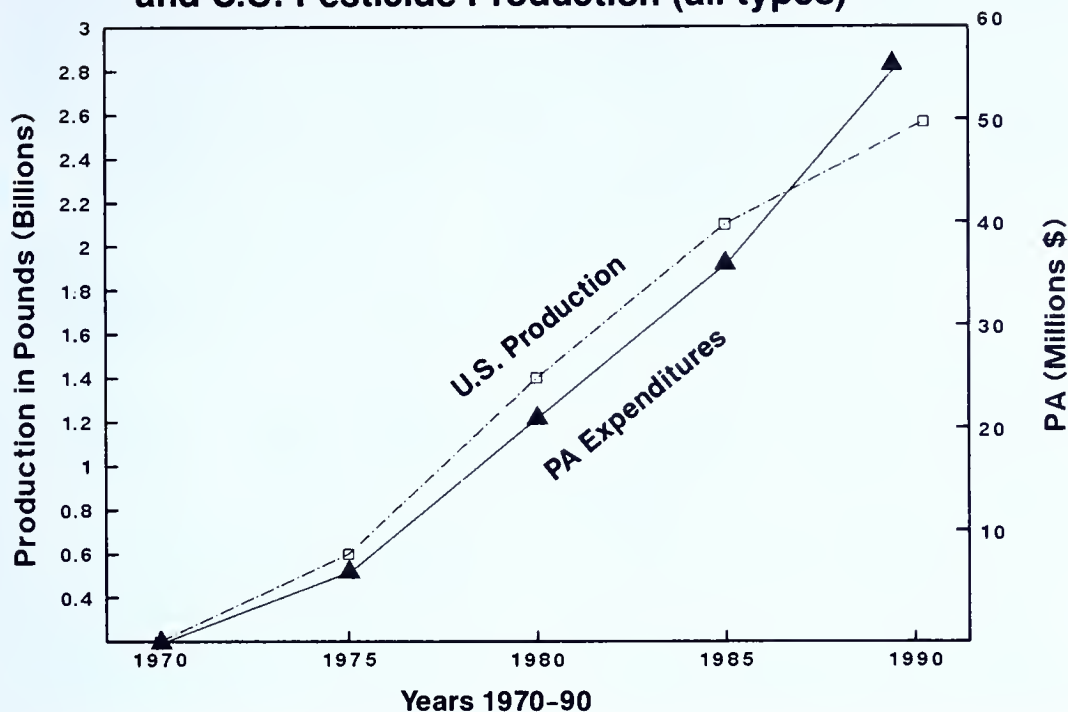


FIGURE 2. U.S. pesticide production has risen to nearly 3 billion pounds, and the state's expenditures for those products has also steadily increased over the past two decades. The use of herbicides and insecticides adversely affects pheasant populations by eliminating weed cover and reducing insect food sources.

Recent Game Commission studies confirm this. In Cumberland County, for example, 98.4 percent of 58 pheasant nests were destroyed by mowing. Only 1.7 percent were destroyed by predation. Perhaps worse, about one out of three hens was killed by the mowers. Results in Berks County were similar. During the initial three years of a study there (1981-83), mowing destroyed between 80 and 100 percent of the nests and from 33 to 55 percent of the hens in two study areas.

Result: Earlier and more frequent high-speed mowing of haylands (sometimes done at night), especially alfalfa, destroys nests and often the hens. Reproduction of grassland nesting birds can't keep pace with the mortality rate.

6. More use of herbicides and insecticides, and the resulting few weed seeds and insects. Rachel Carson, author of *Silent Spring*, reported that between 1947 and 1960 U.S. production of pesticides increased from 124 million to 638 million pounds. Since

then, according to government figures, pesticide production in the United States has risen to nearly three billion pounds. Pesticide use in Pennsylvania increased substantially after 1970 (Figure 2).

If properly applied, herbicides and insecticides do not directly kill rabbits and pheasants. But by eliminating food (insects) and cover (foxtail, ragweed, smartweed) these chemicals have a terrible impact on the survival of farm game. Pheasant chicks depend on insects for rapid, early growth. Insecticides, of course, severely reduce that food source in a treated area, and herbicides, likewise, limit insects and acceptable cover in a brood's home range by eliminating vegetation. Consequently, the hen may have to lead her brood into marginal habitat where the chicks have less chance of surviving.

Result: As birds spend more time and search farther for food, they risk added exposure to elements and daytime predators.

7. More efficient harvesting techniques, less waste grain and fall tillage. Less waste grain means less fall and winter food. This forces pheasants to travel farther and spend more time and energy searching for food. Fall tillage results in winter deserts. More than 2 million acres, or about a quarter of this state's farmland, will be virtually vegetation-free for upwards of four months.

Result: In addition to the hazards listed in No. 6, pheasants and rabbits are also forced to concentrate in remaining patches of cover. This just further exposes them to winter predation.

8. A greater density of cattle on fewer acres of pasture and more tall fescue for forage. Food, cover and pheasant nesting success is diminished as the density of cattle on pastured acres increases (Table 2). Today, most Pennsylvania pastures are cropped short. Intersecting streambanks are often denuded, although the advent of the Streambank Fencing Program has begun to address this problem.

Another detrimental factor, especially for rabbits, is a national shift toward fescue as the principal forage crop for cattle. A cool season grass, fescue provides little food during summer, and it also crowds out more desirable food plants (clover, annual grasses)—ultimately reducing the summer food value of pastures.

Result: Less food and cover for rabbits and ringnecks, and less acceptable or safe nesting habitat as well.

9. Fragmentation of acceptable habitat. Barren harvested fields, fall tillage, overgrazed pastures, strip developments and a network of highways create expanses of low quality or unsafe terrain between islands or narrow strips of acceptable habitat. These islands, on average fewer and smaller today than in the past, attract both hunters and predators, and the potential for the concentrated island populations to be eliminated is greatly increased.

Further, if islands are so small that

they represent food only or cover only, pheasants are at risk as they move across roads or barren winter fields to get from one island to another.

Result: Where only fragments of acceptable habitat remain, both hunters and predators can impact the local pheasant population. But the primary cause of this impact is not more predators, it's degraded habitat that opens ringnecks to more predation, highway kills, weather-related mortality, starvation, and last but not least, reproductive failure.

The nine long-term habitat trends listed above, largely dictated by the agricultural marketplace, have and will continue to depress pheasant reproduction and survival.

The importance of safe sites for reproduction can't be overstated. In this regard, what happened when federal land retirement programs in the Midwest were discontinued is instructive.

In *The Pheasant in Minnesota*, the author writes: "The importance of quality nesting habitat to pheasant reproduction became obvious from 1958 to 1964. During that period, American farmers enrolled from one to two million acres per year in a land retirement program popularly known as the Soil Bank. Under long-term contracts, farmers were required to plant legumes and grasses, and refrain from mowing or grazing their Soil Bank lands. During the peak years of the program, Minnesota and many other states boasted record pheasant populations. But when the Soil Bank was curtailed, pheasant numbers immediately declined due to widespread loss of habitat.

"The lesson we learned from the heydays of the Soil Bank was simple: With good habitat, pheasant numbers will remain good, despite severe weather, predation, hunting, disease, and food shortages."

The next installment of this article will explore the impact of great horned owls on farm game populations in light of degraded farmland habitat.



THE AUTHOR DOWNED this fine 6-point with an SSK-modified Thompson/Center Contender in 375 JDJ caliber. Today's handgun hunter has a wider variety of firearms and chamberings from which to choose, and optics and mounts offered by a number of manufacturers help make hunting with the little gun a more viable proposition.

Little Guns for Big Game

By Dr. George E. Dvorchak, Jr.

HANDGUN HUNTING is becoming one of our most popular outdoor sports. Each year, more Pennsylvania sportsmen seem to be packing the "little guns" as their primary hunting arms.

On occasion, 25 or so years ago, one could observe holstered handguns on hunters' belts—usually carried in conjunction with rifles. In fact, I used to pack the extra weight in anticipation of using it for a close shot. What usually happened, though, was that when a buck was spotted, the rifle was automatically put into service.

At that time, the 357 Magnum, 45 Colt and 44 Magnum were the only

commonly available revolver cartridges. With those arms the effective distance was usually inside 100 yards. Those revolver rounds lost too much velocity, and bullet designs were not effective enough for longer shots. Although most deer in Pennsylvania are encountered well within 50 yards, opportunities for shots at extended ranges do present themselves. Today's more effective handgun equipment can save the day when a long shot is the only one available.

The other factor that probably limited serious Pennsylvania handgun hunters was the absence of suitable optics and mounts. Due to this lack of



FOR HUNTERS using single-shot handguns, a wrist band cartridge holder such as this one from Uncle Mike's allows for rapid reloading when quick follow-up shots are necessary.

easier to hunt with than a flintlock, but harder than using a modern rifle. When compared with archery, I would call it about equal. Although the handgunner has a much longer effective range than the archer, he has no special season and, therefore, competes directly with the rifleman. I have taken deer with all four types of hunting tools, and each was exciting.

I have hunted throughout the United States with handguns, especially within the last 10 years, but had harvested few deer in my own state with a handgun.

Last year I decided to handgun hunt Pennsylvania with the same vigor used when chasing muleys in Colorado or whitetail in Alabama. I also had been working on loads for an SSK-modified Thompson/Center Contender in 375 JDJ. Although the Contender is a single-shot, this is not a disadvantage for the handgun hunter because one shot is about all a person gets—unless you're as lucky as I was.

When I'm hunting and I hear one shot, I normally consider it a hit. But when I hear three, four or five consecutive shots, I usually think they are misses and the hunter most probably was attempting to hit a running deer.

This brings me to a good first rule to observe when handgunning. I pass on running shots unless I am close, although I will take a clear shot at slowly moving game. But when a deer does tear past me, I follow the target with my pistol in the unlikely event it stops. I have found some mule deer and a few whitetail will do that.

If you have good optics, say top-quality 2x or 4x scope, on a long range handgun of appropriate caliber, a clean 200- to 300-yard stationary shot is possible. The right equipment is half the battle. Knowing how to use it is the rest of the story.

As with any big game hunting, scouting is probably one of the most impor-

equipment, hunting with a handgun was not really appealing to the average hunter who was simply seeking venison for the table.

Times have changed, and the big game handgunner is being taken seriously. Pioneers such as J.D. Jones and Larry Kelly had, perhaps, the biggest impact. Once manufacturers began to realize the growing popularity of handgun hunting, they started turning out bullets, optics and holsters designed specifically for hunters.

Pennsylvania handgun hunters are restricted to single- and double-action revolvers, and single-shot pistols. Auto-loading handguns are not permitted for hunting. Once the type of firearm is selected, a lot of practice is necessary to become proficient. Handgunners should be able to shoot accurately at various distances from different positions. The other necessity is securing the required permit from your county treasurer or sheriff's office. Check the game regulations and with the proper authorities to become familiar with applicable laws.

Handguns, in my opinion, are a lot

RANGEFINDERS help to establish distance markers from the stand; range estimates are important to the handgunning sportsmen. Binoculars are always a good idea, as is a flap holster to protect the gun.

tant things a hunter can do to assure seeing game. Scouting for buck should consist of trying to locate scrapes, rubs and frequently traveled trails a white-tail will use before too much hunting pressure changes his pattern. I have found that after the first day of gun season previous behavior patterns are not overly reliable. Ideally, stands should be located within 50 to 100 yards of where one expects the game to appear.

For the first day of last year's season, I moved my portable tree stand about 100 yards from where I usually put it. I have hunted on a good friend's farm from the same location for years, but I moved from what I knew to be a good spot to try to cover an area that also had many trails.

On the first half-day, due to my bad judgment, I didn't see a deer. Becoming suspicious that my move was ill-conceived, I went back to my old stand and at about 11 a.m. I started to see deer again. Although no bucks appeared, just seeing deer and anticipating a nice rack kept the excitement and adrenaline level raised. Day one finally faded into darkness without me seeing a buck, but I did spot a dozen doe. And at least I headed home with a clean barrel.

Although the first day was enjoyable, day two turned out to be a disaster. When entering the woods about one hour before daylight, with my handgun holstered and protected in a flap-top shoulder holster, I lost my footing on some rocks and then scratched my eye on a twig when I fell. Ninety-nine percent of the time, when in thick brush or entering the woods in darkness, I wear shooting glasses to prevent such accidents. Yet this time I had mistakenly left them at home. Now, with a week of hunting lost, I had only the last Saturday to try again.

A few days before that, I took my 375 JDJ—loaded with 270-grain Hornady



bullets—to the range to make sure all was well. The Contender was still zeroed at 100 yards and producing one-inch, 3-shot groups with its Bausch & Lomb 4x scope. At 200 yards, it dropped nine inches, and it fell 22 inches at 300. The gun checked out okay, the eye healed and the weather looked good for the last day.

This time, with glasses on, I headed back to my lucky spot to await sun-up. Once situated, it was time to sit back and mentally review possible shooting situations while waiting for legal shooting time. Once I could see, the noises I had been hearing around me turned out to be squirrels and an occasional feeding-doe. It is such sounds that keep my anticipation level high.

Once in a stand I try to stay there, but after about three hours, due to the extremely cold weather, I decided to move around. I slowly walked to where I thought some friends might be posted, figuring I might get lucky along the way or push something out to them. If nothing else I warmed up, and after the 30-minute stretch I climbed back on my stand and rechambered a round.

Then it happened. Within a minute, to my right about 125 yards away, I saw a doe, then horns gleaming in the sun behind her. The buck was angling away



HANDGUNNERS are not as restricted in caliber choices as they once were. Shown here (left to right) are the 41 Mag., 44 Mag., 454 Casull, 300 Savage, 444 Marlin and 375 JDJ. The first two are old favorites, and the remaining rounds became available to handgun shooters with the advent of modern single-shots.

and walking slowly. I carefully aimed and fired. The deer bolted and ran toward me. I reloaded, aimed, and then he stopped about 75 yards away. I shot again; the buck bolted and continued in my direction — this time stopping about 50 yards from my stand. Once again, I aimed and fired, and again he bolted, then ran past me and stopped. Just before I fired again, he fell.

Once unloaded, I got down from the stand, reloaded and cautiously approached the fallen 6-point. He was down for good. What happened was that my second round hit the buck in the neck, close to the shoulder. My next round went through the shoulder/lung area, which finally stopped him.

Similar shots on three previous deer with the same round resulted in the game falling almost immediately. Bullet placement, game reaction and adrenaline do play a role and no two situations are ever alike. All of this shooting seemed to take a long time, but it all took place within about 30 seconds.

The shooting alerted some friends who came to investigate. One, who had probably kicked the deer out of some thickets as he was walking, was unsure whether it was me doing the shooting because he knew I had a single-shot.

The cartridge wristband I was wearing eliminated fumbling and aided

quick access to additional rounds. This is a consideration for handgun hunters in those rare instances when follow-up shots are needed. The maxim "You only get one shot" is simply not true all the time.

We dragged out the buck, and another season came to an end. Upon skinning the carcass for processing, the jacket of one bullet was recovered near the exit wound on the opposite shoulder. Even with bone shattered, the buck stayed on his feet. That's why a follow-up shot can be necessary, and it's the reason you should trail an animal you're fairly certain you hit. Many deer, dead on their feet, will travel a 100 yards or more. In order to keep from wasting game, follow up and take nothing for granted.

Hunting is an exciting sport, and using a handgun adds to the thrill. Hunters interested in pursuing this growing sport can get more information from several organizations. J.D. Jones, founder of Handgun Hunters International, told me that, according to his records, Pennsylvania is already outpacing most other states when it comes to handgun hunters.

From the handgun hunter's point of view, Pennsylvania is an excellent state in which to pursue big game with a little gun.



Leonard Lee Rue II

ONE OF NATURE'S spectacular displays is the mating flight of the male woodcock. Recent studies of radio-tracked birds indicate the male's use of "singing grounds"—from which he performs the courtship ritual—is more complicated than previously thought. Migration patterns, too, have come under new scrutiny.

Courtship Quirks of Woodcock

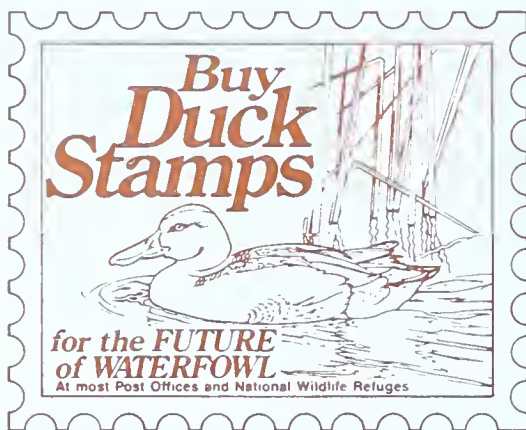
By Lincoln Lang
PGC Biologist

THE COURTSHIP ACTIVITY of the male woodcock is one of the most fascinating events springtime has to offer. The male's *peenting* call emanating from overgrown meadow or forest openings at dusk and dawn, the twittering sound of his upward spiraling flight, and the melodious chirping during his return to the ground is a show we continuously enjoy.

Casual observation of this display suggests the same woodcock repeats this performance evening after evening and morning after morning on the same

singing ground. Studies of individually marked birds, however, disclose more complicated behavior.

In recent years wildlife technicians Jack Gilbert and Janice Gruttadauria, biologist Fred Hartman and I have been studying woodcock in the state, evaluating its habitat needs and the effects of hunting seasons. Declining woodcock numbers in Pennsylvania and elsewhere have necessitated a closer scrutiny of these upland migratory game birds. By accurately timing the hunting season to coincide with the



greatest number of northern migrants, less pressure is placed on local, breeder birds.

The studies require us to capture and band as many woodcock as possible. We use various methods to capture the birds from spring through fall. Mist nets are commonly employed in the spring to catch males at their singing sites. These nets (similar to a large volleyball net with fine mesh) are strategically placed in the flight path of the woodcock at a singing ground. If we've done our job properly, and the woodcock cooperate, the birds hit the net and become entangled during take-offs or landings. In addition to banding them, we also attach tiny radio transmitters to some birds to follow their movements and to determine their length of stay in an area.

Last To Leave

We once thought our local breeders migrated prior to or with the main movement of woodcock through our state. But it seems, according to our radio-equipped woodcock, that our breeders are late in migrating south. In fact, we believe resident woodcock are some of the last to leave Pennsylvania in the fall.

Observations of spring migrations suggest some resident woodcock arrive in the state at least as early as the non-residents that continue farther north.

We did not plan a study of the woodcock's mating ritual—that has been well-documented. Nevertheless, several behavioral activities witnessed at

singing grounds during the course of our work impressed us; and because we depend on systematic counts of males to ascertain population trends, we question some of our results. Here are some noteworthy examples of the singing male woodcock's behavior.

One evening in April 1988 we captured two woodcock in mist nets on singing fields slightly less than a half mile apart. Radio transmitters were attached to both birds, and they were released at the capture sites. The following evening woodcock No. 1 had switched his activity to another singing ground 0.6 mile away, near an old quarry. Woodcock No. 2 continued to sing at his old home site where he had been captured the night before.

Two weeks later woodcock No. 2 began singing at dusk at his regular spot. We traveled to the quarry, hoping to check on woodcock No. 1. There we heard two woodcock *peenting* but could not pick up the expected radio signal from No. 1. However, we were surprised to hear the radio signal from No. 2 coming from this singing field. He had apparently changed fields between courtship displays, a distance of 0.3 mile. We assumed a new bird had taken the place of the absent No. 1.

We were even more surprised at what happened next. Leaving the quarry, we drove to another field 1.2 miles away that we knew was used by singing woodcock. We again found two woodcock *peenting*, and again one of the birds turned out to be our No. 2. This woodcock sang at three widely separated locations the same night, all in a period of 23 minutes.

More recently, a singing woodcock was mist-netted in an opening surrounded by brushy growth in an old clearcut. A radio transmitter was attached to the bird, and for several days we monitored his use of diurnal cover.

One week after capture we attempted to follow his activity prior to and during the courtship display. This appeared to be an easy task because the bird was spending the daylight hours very close to the singing ground where

he had been captured. We thought it would be possible to receive the radio signal from one vantage point.

The receiving antenna was placed in a tree, and one of us sat back to wait. However, when dusk fell the radio signal faded; but a woodcock began *peenting* on the singing ground. It was a different bird.

The woodcock we'd captured was discovered a quarter of a mile away, singing in another opening in the clear-cut. Apparently, when our radio-instrumented bird abandoned that particular singing ground, another one took over.

On other occasions we have caught different woodcock on the same singing ground on separate nights. We have also caught two woodcock in the same net at the same time. At one site we found that by placing a net in the exact same location and position where we had captured a woodcock the previous year, we could capture a new woodcock and on a later night recapture it. This has enabled us to replace worn-out radio transmitters with new ones.

Some woodcock may be faithful to one singing ground, and those that move from place to place do appear to favor one special field. Some literature suggests the dominant males eventually occupy the more preferred singing grounds and competition for these areas results in some shuffling of males—the less dominant having to make use of poorer sites.

The best singing fields are used year after year. We know of one singing site



that has been used for more than 25 years by a series of different woodcock. This perpetual use has occurred because the Commission has maintained the site in good woodcock breeding habitat condition. Natural plant succession and growth limit the number of years a singing field is suitable for use. Competition for existing grounds is keen, and we suspect some males do not sing because of a lack of suitable sites.

Perhaps our studies of woodcock uncover more significant questions than they do answers. Importantly, this research is changing some of our thinking about woodcock biology and management. Good management of woodcock and their coverts is vital. Although observations on singing male woodcock are only incidental to our main study, they do underscore the importance of these areas. The singing grounds, those reverting farm fields and regenerating forest clearcuttings, are the focal point for woodcock existence.

Upcoming Attractions at Middle Creek and Pymatuning

Upcoming lectures at Middle Creek begin at 7:30 p.m. and include: "Bears of North America" by PGC Biologist Gary Alt, May 1-2; "Wildlife Photography" by PGC Video Specialist Hal Korber, May 15-16; and "Wild Flowers in Pennsylvania" by WCO Tim Flanigan, June 5-6.

Lectures at Pymatuning begin at 2 p.m. and include: "Wild Turkey" by Bob Bechtel of the state chapter of the National Wild Turkey Federation, April 14; "Wildlife Photography" by wildlife naturalist Mike Ondik, April 20; and "Wild Flowers" by WCO Tim Flanigan, May 11. Pymatuning will also host a four-mile nature hike through SGL 214 on April 28 at 8 a.m. Hikers should bring binoculars, field guides and proper dress.



End of the Trail

By Mike Raykovicz

NO FORM OF hunting frustrates me more than turkey hunting. I've been gobbled at, snuck up on, watched from above, scared half to death and embarrassed by more turkeys than I care to remember. I've worked gobblers for more than an hour without getting them, and I've nearly stepped on birds before they flushed and flew to distant ridges. I even had a bird cross a dirt road in front of me as I sat on the tailgate of my truck just after legal shooting time.

Despite all that—or maybe because of all that—I enjoy the challenge of hunting difficult birds under adverse conditions. Each hunt is unique and usually provides a lifetime of memories. I never let bad luck or the lack of turkey activity get me down. In fact, adversity often works to my advantage. I have killed many birds late in the season after others have quit. Never give up until the last minute of the last hour of the last day: To consistently tag a spring gobbler the hunter must never lose his resolve.

One of my most memorable hunts occurred last May during the final week of spring turkey season. It was seven days since I had heard a turkey gobble and the silence was affecting my optimism. On the previous morning's hunt, I had been stung by a wasp, bitten by insects and temporarily "turned around." Today, I was tired, hot, parched and not in a very good frame of mind as I trudged through the woods to my truck. Morning after morning greeted me with nothing but silence, and for a moment I seriously considered taking the easy way out and hanging up the gun for another year. That's what most of the other hunters had done.

Many of the local "experts" figured the birds were no longer interested in mating. Most of the gobbling activity

had occurred early in the season, and some of the less knowledgeable guys were saying the gobblers had all been shot. If I hadn't hunted turkeys for almost 25 years, I might have believed them. But I knew better.

I knew from my thorough preseason scouting that there were a good number of turkeys to be found. I had seen several gobblers in previous weeks and knew of only one being killed.

With three days left in the season, the weather changed. The hot weather was on its way out, and a cool front was moving in. The weatherman predicted intermittent showers for the next several days. Maybe I still had a chance.

With the lack of gobbling, and diminished hunter activity, I had the woods to myself. I no longer had to worry about competing with skilled turkey hunters because I knew several had already tagged their birds. The rookie turkey hunters had given up long ago.

The next morning broke cool and clear. There were wisps of clouds in the sky that the weatherman promised would thicken to rain clouds before noon. Because of the absence of turkey talk, I decided to change my strategy. The landowner assured me that none of his family would be hunting. Chores were beginning to pile up and, for my farm friend, it was the end of the season. Under those conditions, I decided I would beat the silent old toms at their own game.

Boss gobblers will not tolerate other toms intruding on their territories. There are many turkeys in the spring woods that don't advertise their presence by gobbling. To do so would risk a thrashing by the dominant gobbler. By gobbling first, I hoped to arouse the interest of a silent boss gobbler.

Just after dawn, I settled in at one of my favorite listening points and let out as loud a gobble as I could muster. To



BOSS GOBBLERS will not tolerate other toms in their territories. Many turkeys in the spring don't advertise their presence by gobbling, seemingly to avoid a thrashing by the dominant gobbler.

silent. If the boss gobbler is killed, a less dominant tom will quickly replace him. I wasn't sure which type of gobbler I had answering me so I was forced to do some guessing.

Because the birds had not answered hen calls, and this particular one answered my gobble call, it seemed likely I had contacted the boss. The only other turkey I knew to be taken from these woods was a jake with a four-inch beard. At the very least, I hoped I had a bird that would want to join another tom.

On several occasions I had watched turkeys fight among themselves. The toms created a tremendous racket as they attempted to pummel each other with their wings and spurs. During those encounters, I heard them make what can be described as an aggravated purr. The call consists of loud purring and clucking with a gobble or two thrown in for good measure. A diaphragm and a bellows type gobbler call used in tandem imitate these sounds very well.

By now, daylight was increasing and the songbirds were in full chorus. I reached for a small stick and began to make rustling noises in the leaves. With loud purrs and cutting on the diaphragm, I was able to elicit one more gobble from the suspicious bird. With my left hand, I gave the gobbler call a long vigorous shake and got another excited answer. The gobbler was about 80 yards away and on the ground. The question was, what was he going to do? I made one loud "here I am" cluck on the mouth call and picked up the gun. An agonizing 15 minutes went by, but not another sound came from his direction. I had to do something.

The trees and underbrush were in full foliage, and for all I knew he was close and within shooting range. I decided to risk another call. I carefully reached for the gobble call and gave it a

my astonishment, I got an answer from a tom some distance below me. He was roosted near a small brook that wound its way through the valley below. Here was my opportunity.

I hurried down the hill until I was satisfied I was on the same plane he was. Getting comfortable in front of a large oak, I reached for my turkey calls. The challenge was to keep his interest or to arouse his jealousy. I had decided against hen yelps. Over the course of the season, I reasoned, the birds had been yelped to nausea by an army of camouflaged adversaries. In the previous weeks, I had watched several gobblers fly from their roosts and sail across the valley when they heard a hen yelp. And I was reasonably sure the birds had heard my calling in the past week and had not answered. This was going to be a game of wits.

There is a hierarchy within the turkey social structure, and this social order dictates how vocal some of the less dominant gobblers will be. Early in the season, two- and three-year-old gobblers are attempting to establish their dominance by gobbling. In effect, they are determining which will breed with the hens. The young jakes also join in the party, and to the uninitiated it seems the woods are full of hot gobblers. Later, a dominant gobbler will jealously guard his harem of hens, running off or fighting intruders. Many of the less dominant toms will become

vigorous shake. He answered immediately—above me. He was interested and had changed location, but he hadn't come any closer. I couldn't see him and so far he couldn't see me. This gave me an opportunity to turn the tables.

Slowly, I gathered my calls and decided to slip farther down the hill and closer to the brook. I hoped the sound of the water would muffle my movements while I worked my way downstream. I planned to head in the direction he had been and to move uphill to where I'd first heard him.

Usually, I have little luck in calling a turkey back to a spot where he has already been. I firmly believe a hunter must get out ahead of a moving tom if he's ever going to kill him. However, desperate times call for desperate measures. This bird did not seem to be in any particular hurry to go anywhere, so I thought I'd gamble on calling him back.

All was quiet except for the buzzing of a swarm of blackflies around my eyes and head. I gave my cap and face a good dollop of DEET and dug in. I decided to test the water by making loud aggravated purrs and clucks on my slate call. "Purrrr-Putt-Putt-Purrrrr-Putt-Putt---Putt." The woods remained silent, and for a brief moment I thought he had lost interest. Suddenly, he double gobbled and for the first time I was confident I was winning. I gave one last cluck and again I picked up the gun.

Anyone who has hunted turkeys long enough knows that it is more than calling that bags the bird. Patience, determination, self-confidence and luck are all factors that determine the outcome of any hunt. I had all five things going for me this morning, and they were about to allow me to close the net.

The flies were driving me crazy with their buzzing and biting. My undershirt was soaking wet from the workout. But it didn't matter. The temporary discomfort would soon be forgotten on the way out to the road with a gobbler slung over my shoulder.

A sharp cluck on the slate call evoked



This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

an immediate gobble from somewhere in front of me. I was confident I had him set up for the kill. Now, if he would only close the distance between us. I waited and heard him gobble one more time. It seemed like he was getting closer. Twenty more motionless minutes produced nothing but strained eyeballs and a sore rear end. I decided to risk one more cluck, and I was glad I did.

The bird gobbled from behind me and it sounded like he may have been moving away. I was in the proverbial pickle. Apparently he had moved silently toward me but, because of the heavy foliage, had overshot my position. I had to move out in front of him or attempt to get him to change direction. Another trip up and down the mountain was the last thing I wanted to do, so I opted for the other choice. A few soft clucks did the trick. A thunderous gobble told me so.

He was close enough to kill if I could only see him. I took the slate call and made one more gobbler cluck. I then eased up the gun in tense anticipation.



THE GOBBLER was not yet in position for a shot and I couldn't do anything but wait. Suddenly, the bird took flight and in a few short wingbeats became only a memory.

gobbler, but I had a lousy feeling that the situation was about to take a quick turn for the worse. The gobbler was not yet in position for a shot and I couldn't do anything but wait. Suddenly, the bird took flight and in a few short wingbeats, he became only a memory.

A dog bark came from near the creek. The landowner's beagle was on the trail of the deer. The doe continued up the mountain with the small beagle trailing. The deer was in good shape and the dog was fading fast. My hunt, if not my season, was over.

I struggled to my feet and gathered my gear. I had done everything right except bring him home. I was disappointed: I had worked too hard and too long to go home empty. As I walked back to the truck I took comfort in knowing some of my best hunts ended with the gobbler walking away.

No law says a hunter has to kill every bird he hears. I had taken on the challenge of the mountain monarch and had fooled him. I felt the better for it. I had learned another turkey hunting lesson, one which would endure for as long as I am able to hunt. Chance events spared this old boss's life, and I took great solace in knowing he would live to gobble another time.

He gobbled again, and from the location I knew he was moving. This hunt was about to conclude.

In the beech slash ahead, I could see a patch of black in the sea of green leaves. My instincts told me it was my bird but pulling the trigger required more certainty. I needed to see him and his beard clearly to be absolutely certain of my target and ensure a clean shot. I waited. The gobbler had to take about five more steps before I could feel comfortable with the shot.

As I was concentrating on the gobbler, I heard rustling in the leaves below me. A deer had splashed across the creek and was running up the mountain. She was a good distance from the

Taxidermy Exam Slated for April

The first of two taxidermy exams planned for 1991 will be held April 22-24 at the Southcentral Region office in Huntingdon. State residents at least 18 years of age are eligible to take the exam. Applications are available from wildlife conservation officers, and they can be contacted through region offices—telephone numbers are listed on pages 4 and 5 of the hunting and trapping digest. The exam has three parts, the first of which is submission of five specimens the applicant has prepared within the past three years. Required specimens include antlered whitetail head, small mammal, adult upland game bird, waterfowl species and a fish. Birds must be mounted with feet and legs visible. Submissions must be Pennsylvania animals. The second phase tests taxidermy procedures and methods, and in the third, applicants must work on a selected specimen. Applicants must pass all three parts of the exam to obtain permit eligibility.



IT TOOK about a month for the gray squirrels to get accustomed to the box that suddenly appeared on their tree. And it was another month before they decided it would make a good home. Eventually, though, they moved in, one pair to a box. On particularly cold winter nights as many as five squirrels slept in one box.

Boxful of Squirrels

By Eric Patnychuk

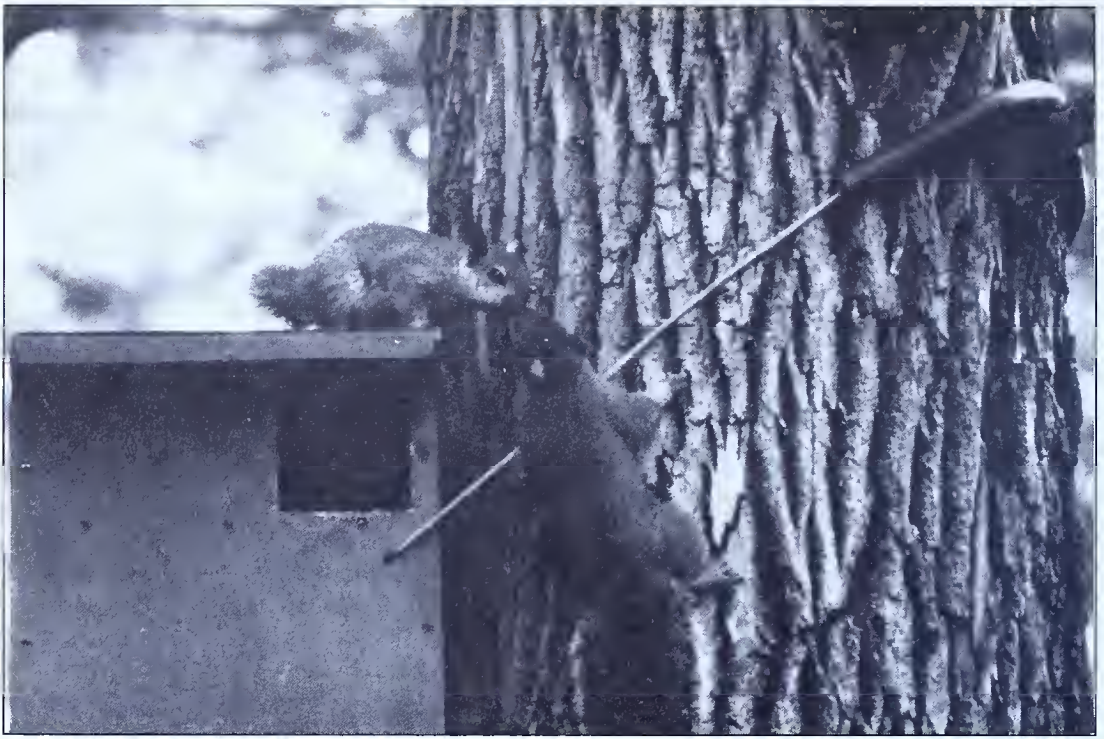
IN AUGUST, when my father and I first hung the two nesting boxes in our backyard woodlot, the squirrels were afraid of them. In fact, they went out of their way to avoid them, climbing a nearby tree and then—after reaching a height safely above the box (both were hung about 20 feet high)—crossed a branch to the den tree. Sometimes a squirrel would scold the black rubber tube we had put over the securing cable to protect the tree; they probably thought it was a snake.

After about a month, though, the grays got used to the two boxes and would pass by them on the tree trunks. After another month passed I began to get worried because it seemed the squirrels would never use the nesting boxes my dad and I had made for them.

In early November, though, my fears were quelled when I looked out at one of the boxes and didn't see the usual black opening. Something was in the doorway. I grabbed our binoculars just in time to see a squirrel looking out of the box before it quickly turned around and disappeared inside.

The box must have met with the squirrel's approval because it quickly began making trips to the ground for dry leaves. The same thing happened with the other box, and we soon had a pair of grays living in each one.

We saw them every day during the late fall and winter, except during extremely bad weather. On particularly cold nights as many as five squirrels slept in one box. When spring came, though, the "extra" squirrels were



chased away until only a pair continued to occupy each box.

As spring progressed we became increasingly anxious to see baby squirrels. It was on an early April Saturday we first saw a tiny head peering out of one of the boxes. Then another head appeared beside it and then a third on top of them. Three tiny baby squirrels. The little squirrels spent much of their time looking out of the hole at the exciting world they had found.

The pair living in the other box also had three young. Those babies emerged about a week after the young of the first box did.

Mustered Courage

It took a few days before any of them mustered enough courage to leave the safety of the den. After much hesitation, however, one pulled itself out of the box and onto the tree. It was then that we saw how small they really were. The other two soon followed.

For the first week or so the three young squirrels never went far from the den. They spent much of their time wrestling each other on top of the box. As the days went by and they became better at climbing and more sure of

themselves, they would venture higher and higher up the tree, exploring everything.

As April faded into May the young squirrels became accustomed to my presence and continued their play, occasionally stopping for a moment to watch me take their picture.

By mid-May the young grays were making ventures to the ground and to nearby trees, sometimes spending almost an hour in the treetops.

When May started to become uncomfortably warm, the squirrels left the nesting boxes to live in cooler, leaf nests higher in the branches. But when the days get shorter and the nights get cooler in the fall, I know that I'll look out one day and see a squirrel carry a large mouthful of leaves into his new home.

The plans for the nesting boxes we used came from *Woodworking for Wildlife*, published by the Game Commission and the Wild Resource Conservation Fund. The plans are easy to follow and the boxes fairly easy to build.

We decided to make one of each of the two squirrel box designs (Plans 15 and 16) to see if the squirrels had a preference. As both boxes were inhab-

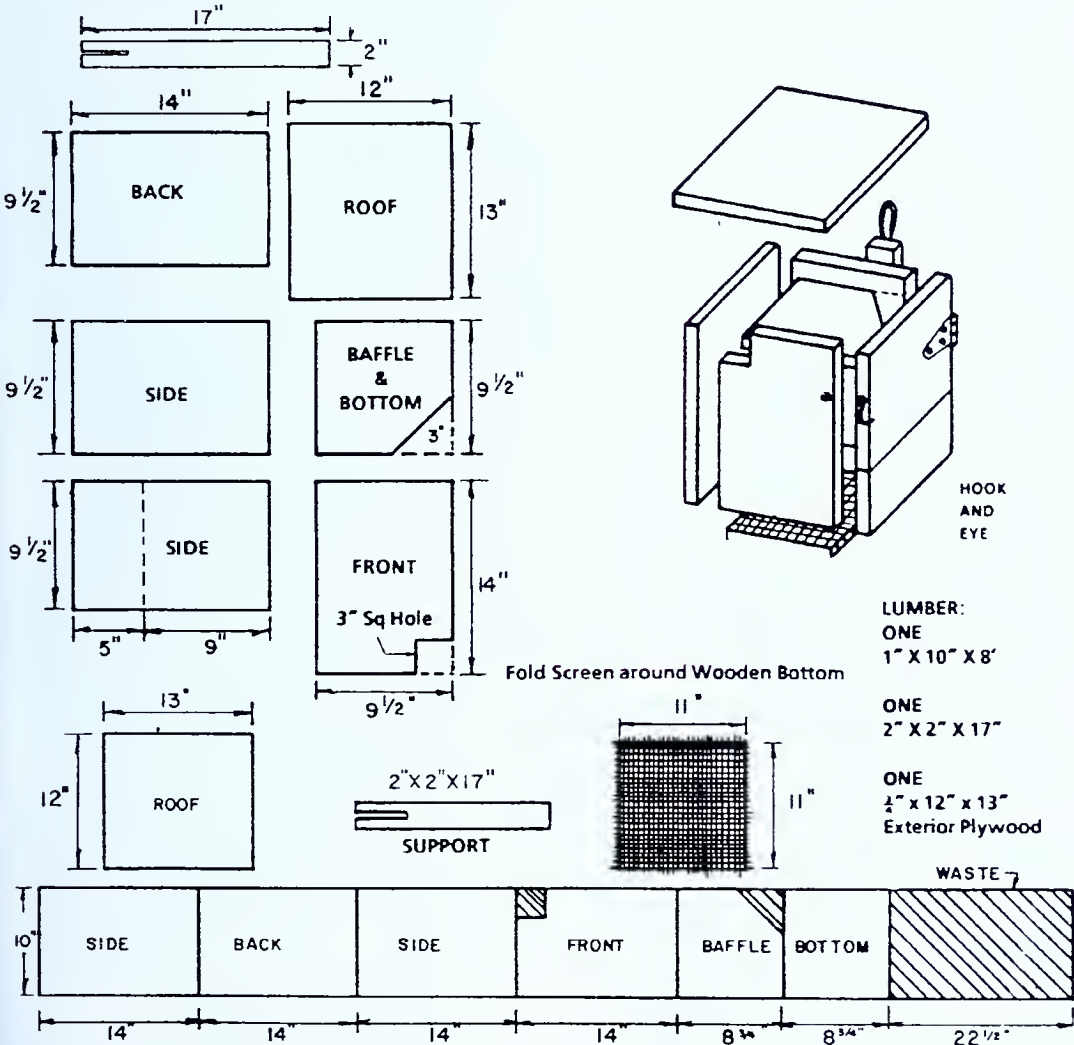
Woodworking for Wildlife (available from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797) gives detailed plans and related information for erecting wildlife nesting devices. It costs \$3, delivered. The plans for the two squirrel boxes described in this story are among the 22 proven homes and other devices to be found in the 60-page booklet. Plan 16 is shown below. The author and his father made small modifications to the plans. One was the method of attachment, in which they drilled a hole in the box and ran a cable through it. Flexible tubing sheathed the cable to protect the tree. Projects like these offer the satisfaction of a job well done and the constant enjoyment of watching wildlife.

ited, we concluded that they did not. One of the changes we made was to add an inside shelf just under the box opening (the plans for the smaller one already had this) to give the squirrels inside the box someplace where they

could sit and look out comfortably. We found that the grays loved to do this.

The other change we made involved the method of attaching the box to the tree. We drilled a small hole in front and back of the box, just under the shelf, through which we ran a cable to secure the box to the tree. We positioned the box so that the cable rested just above a branch on the opposite side of the tree. This held the box securely with no chance of slipping.

It was entertaining as well as satisfying to watch the eight squirrels (mother and three young in each box) live and grow in the safety and comfort of the boxes my dad and I had made for them. Building those two squirrel boxes took us only one weekend and we will enjoy watching squirrels live and raise their young in them for years.



Spring M



LARRY SCARTOZZI, Jr., above right, took his 18½-pound gobbler, which sports a 10-inch beard, while hunting from the family farm house in Susquehanna County; then, on the following day, he called in a 13-pound bird for his dad, Larry, Sr.

AARON PHILIPS, Hamlin Corners, poses with his second spring gobbler, just one of several big game trophies the Phillips family has taken on SGL 159, reports Aaron's dad, Michael.



RODNEY DEBIAS, Windber, stayed in Somerset County to bag this 18-pounder with an 8½-inch beard. The same year, Rodney's younger brother, Tim, took a 22-pound gobbler with a 10½-inch beard in Cambria County.

BILL EVERETT, Wilkes-Barre, proudly poses with the 20-pound turkey he found in Luzerne County on the opening day last year. Bill dropped the trophy at 35 yards with one shot from his 10-gauge.

ng Season ody Makers



ARL SCHROCK, lower left, displays his first spring gobbler, a 15-pounder with a 1/2-inch beard, while his son, **Jim** holds his bird, an 18-pounder with a 6-inch beard. **Ken**, **Ken**, **Ken** and **Mike** also got birds during the season's first week.



IVAN WEAVER, Bethel, went to Tioga County to call in this 15-pound spring gobbler.



DONALD PUGH, Hooversville, above, was surprised after dropping this Bradford County bird to discover the 20-pound trophy had four beards—10, 6½, 4½ and 4 inches in length. **Rich Wurzbach**, below, Brogue, found this hefty gobbler, a 22-pounder, in Susquehanna County. The turkey was Rich's fifth in eight years of hunting.



Countering 'Anti' Arguments

PHILADELPHIA COUNTY—In recent months I've dealt with the major media outlets in Philadelphia, and a reporter from the *New York Times*, but it's no match for the lies and misinformation fed to the media by anti groups. The media, unfortunately, are all too quick to foster negative stereotypes of the outdoor community. It is imperative that we get our message through to the public: hunting has an outstanding safety record; hunting dollars pay for land that everyone can enjoy and fund wildlife restoration and research programs. The Commission can't do it alone, but with the help of more than a million hunters and trappers in this state we can make a difference. Wildlife and future outdoorsmen are depending on us.—WCO Richard J. Shire, Philadelphia.



Incentive Program

McKEAN COUNTY—A Mount Jewett hunter said he spent so much time hunting turkeys in New York and Pennsylvania that his wife hid both licenses until he got some work done around the house. A shed was built, wood split and a porch finished—all in record time.—WCO John P. Dzemyan, Smethport.

Missing Lynx

CUMBERLAND COUNTY—Commission biologist John Dunn was recently dispatched to investigate a report of an injured bobcat in Adams County. Arriving on the scene, John found not a bobcat but a lynx. The animal was dead, illegally shot. It was wearing a New York conservation department telemetry collar, and John learned the cat had been part of that state's lynx reintroduction program in the Adirondacks. Officials there had lost contact with the cat four months before it showed up in southern Pennsylvania.—WCO James R. Binder, Shipensburg.

The Big Picture

WAYNE COUNTY—While visiting various hunting clubs last season, I found it interesting that many hunters were excited about the various non-game species observed during their hunts. Several folks reported seeing osprey, river otter and several species of hawks and owls. It's certainly gratifying to see sportsmen with an interest in the "big picture" of commonwealth wildlife.—WCO Donald R. Schauer, Honesdale.

True SPORTs

COLUMBIA COUNTY—I'd like to express my sincere thanks to those who witnessed violations last year and took the time to get involved. Some telephoned with timely information and others testified in court. These people are true SPORTsmen. Because of their determination to put a stop to game hogs and other violators, future generations will be able to experience the thrills of hunting and trapping. To those who observed infractions but did nothing, I appeal to you to take action next time. Remember, the outlaw is stealing from everyone.—WCO George A. Wilcox, Millville.

Change of Heart

GREENE COUNTY—While patrolling on the first day of buck season, I ran into a senior citizen who had something on his mind. "When I was a young buck," he said, "I used to get hopping mad and even circulated petitions to stop the Commission from buying so much worthless land. Now I come out to the game lands and fully enjoy them. I killed an 8-point here last year. Now that I'm older, I realize how invaluable these game lands purchases are to sportsmen."—WCO Robert P. Shaffer, Carmichaels.

For A Price

LAWRENCE COUNTY—Waterways Conservation Officer Joe Houck works with me during doe season and always comes up with a good case. Two years ago he apprehended a juvenile using a homemade license, and last year he caught a guy using a 1965 antlerless deer license. Joe says he likes to work game law enforcement because he doesn't have much paperwork at that time of year, but I think it's because my wife always feeds him her homemade chili.—WCO Gene Beaumont, New Castle.

Safety First

WESTMORELAND COUNTY—In small game season I observed a car pulling into an area I had just stocked with pheasants. I decided to check the man and asked for his license and some identification. I checked his pump shotgun for the required plug, and there were indeed a plug and three shells in the gun. But there were *two* in the barrel and *one* in the magazine. The hunter had inadvertently slipped a smaller gauge round into the chamber, which had slid down the barrel. Had the hunter fired his shotgun—likely, because I'd just stocked the field—I'd be writing an accident report instead of a "Field Note." Hunters need to pay strict attention to firearms safety rules.—WCO Joseph V. Stefko, Greensburg.

Thunderbird

SCHUYLKILL COUNTY—A local sportsman and his wife came home one evening to find a window broken on their garage. As they opened the garage door, a grouse roared into flight—giving them quite a scare. Indians referred to the grouse as the thunderbird, and now that family knows why.—WCO John Denchak, Gordon.



Scouting's the Key

CAMERON COUNTY—This past hunting season offered a unique opportunity to observe the relationship between food supply and game concentrations. The county's southern half had been heavily defoliated by gypsy moths, resulting in a low acorn crop. The northern half had been spared, and acorns were plentiful. Hunters found heavy concentrations of squirrels in the north and few in the south. Bears, too, moved north to take advantage of the abundance of food there. Hunters should learn from this: Preseason scouting increases your odds.—WCO Joe Carlos, Driftwood.

Snowy Sighting

CRAWFORD COUNTY—The new year began with an unusual bird sighting. While patrolling Pymatuning I spotted a snowy owl on an ice floe. Several of us watched the big bird for half an hour before it took off and headed west.—WCO Dave Myers, Linesville.



Unwelcome Boarder

SOMERSET COUNTY—I was called to a trailer park where a beaver was attempting to build his lodge under a mobile home. The animal had tunneled up from the creek under the home, and had removed the trailer's skirting to begin building his house. The homeowner removed the debris and plugged the hole, but the beaver responded by re-opening the tunnel and packing what turned out to be three pickup loads of limbs under and against the mobile home.—WCO Daniel W. Jenkins, Somerset.

For the Record

PERRY COUNTY—This one's for county residents, and those throughout the state and Canada—especially for the folks who are always on my case for never having a Field Note published. Take note of Bob Mitchell's editorial in the January *GAME NEWS*. Then read Keith Snyder's "WCO Diary" in the same issue, where Perry County is mentioned. Perry County is alive and well, and it still doesn't have a traffic light.—WCO L.L. Everett, Newport.

This Land Is Your Land

MONROE COUNTY—After 20 years here, I'm delighted to see increased utilization of our game lands. Human development is fast eating up our open spaces, but through sportsmen's dollars we're saving a lot of land for everyone to enjoy.—WCO David E. Overcash, Stroudsburg.

Confession Time

BEAVER COUNTY—I've been engaged in a few interesting conversations in the past couple months. One landowner asked me when I was going to start stocking pheasants for the late small game season and told me how much he liked hunting cockbirds after Christmas. I informed him there was no second season for pheasants, never had been; the landowner replied it must have been rabbits he always hunted and said he had to go. At one of my hunter-ed classes a young lad told me his dad had killed three deer the previous season, and sometimes he even buys a license. The boy's brother chimed in saying, no, it was four deer and Dad didn't need a license. About then the father showed up. "You know, kids say the darndest things. Do you have a minute; I can explain . . ."—WCO Keith A. Falsco, Beaver Falls.

Fine Effort

ERIE COUNTY—On the buck season opener, Tim Doyle saw a doe coming toward him suddenly drop in a field. The doe apparently had been mistakenly shot by another hunter or struck by a stray shot. Tim field-dressed the animal and managed to get it back to the parking lot; he then called the Commission to turn it in. While this may not seem an unusual feat, it should be noted that Tim is confined to a wheelchair.—WCO Wayne Lugaila, Waterford.

All Dressed Up

CENTRE COUNTY—Extremely warm weather during buck season, coupled with the fact that my Commission vehicle was in the shop, prompted me to patrol on my mountain bike. My black cycling tights generated a lot of comments from the hunters I checked, and so dressed, I often felt out of place. But I felt downright normal after I encountered one hunter who, in addition to his blaze orange hat and vest, was sporting multi-colored surfer's shorts and a very loud Hawaiian shirt.—WCO George F. Mock, Coburn.



Try That Again

FOREST COUNTY—On opening day of bear season Deputy Bob McClellan observed a man heading into blow-downs created by the 1985 tornado. He was carrying a lawn chair and had a rifle slung over his shoulder. About 20 minutes later, the deputy saw the fellow again, and this time he was excitedly waving his arms. McClellan went over and found the man had killed a fine bear. The hunter said he'd just sat down when he saw the bruin coming toward him; he couldn't believe that shooting one could be that easy. Let's see him do that again.—WCO Alfred N. Pedder, Marienville.

Helping Out

WAYNE COUNTY—This past buck season I was fortunate to have the help of WCO Donald Schauer, LMO Wilmer Peoples, and deputies Pingel, Smith, Vaverchak and Rodriguez during an investigation of a bear killed out of season. Several members of a local hunting club also became involved, giving up their hunting time. The investigation lasted three days and two nights. Two individuals were apprehended and successfully prosecuted; they were fined \$800 each and will probably lose their hunting privileges for several years. The risks of poaching are increasing, thanks to the efforts of concerned sportsmen and agency officers.—WCO John C. Shutkufski, Damascus.

Meat Care Important

VENANGO COUNTY—The warm weather prevalent during buck season last year caused animals to quickly spoil if they weren't properly taken care of. In warm weather, entrails should be removed immediately, the carcass washed with cold water, and the animal should be skinned and cooled as soon as possible. Several requests for second deer permits were received, but they were denied when it was discovered the meat had spoiled due to improper care. Second deer permits are granted only if the deer was unfit for human consumption at the time of kill, not if a hunter or processor fails to properly care for the animal.—WCO Leonard C. Hribar, Seneca.

Winter Walk

Last January I decided to take my muzzleloader for a walk on SGL 227. I saw that the beavers had greatly enlarged their lodge on the flood control dam. I watched a robin consuming the bright red berries from a winterberry shrub and a chickadee returning from a cornfield with a kernel of corn in its beak; possibly they had a premonition of the snow that was to fall the next day. Just before legal quitting time, two great horned owls began serenading one another. Although I saw neither hide nor hair of a deer, it was a very pleasant day afield.—LMO Stephen L. Opet, Tamaqua.

Not Enough for Some

FULTON COUNTY—Over the course of a hunting season, officers hear about the good ol' days. While I get many good reports on the abundance of game, some people are never satisfied. I was checking a group of hunters during doe season; five of the six had killed deer. One of the guys really took the cake when he asked where all the deer were. I pointed out there were five right in front of him. "Yeah," he replied, "but that's all we saw."—WCO Mark A. Crowder, McConnellsburg.

Who's Minding the Store?

ELK COUNTY—While working my district, I and a couple deputies were called to help with an investigation in Clearfield County. By the time we were finished, we had recovered parts of nine illegally killed deer and one illegally killed bear. We got information and evidence implicating several people. On the way home, we received a call to go to Jefferson County to help with another case. There we recovered two illegally killed deer, arrested two people and had information on a third. It was certainly a full day's work, but who was watching the Ridgway district in my absence?—WCO Richard S. Bodenhorn, Ridgway.

No Charge, Either

Lots of folks don't appreciate the diverse abilities possessed by members of our deputy force. A pet turkey owned by Ted and Vickie Garfield, Farm-Game cooperators in Venango County,



had dislocated his neck and was in great pain. The Garfields called a veterinarian, but he was unable to help. Not willing to give up, daughter Rebecca called Deputy James Lowros, a chiropractor. Dr. Lowros went to the farm and manipulated the turkey's neck; within two days the bird was eating, gobbling and doing fine.—Special Operations Division Chief John A. Shutter, Jr.

Keeping Tabs

CLEARFIELD COUNTY—I checked an Ohio hunter on SGL 93 during bear season, and his first words were, "Why didn't you have a Field Note in this month's GAME NEWS?" I'm used to the local people watching for my "Field Notes," and it looks like nonresidents keep an eye out as well. This one's for that Ohio hunter; best wishes for many years of hunting pleasure in our state.—WCO Colleen Shannon, Luthersburg.

Really Flying

BLAIR COUNTY—Deputy Steve Reed relayed an incident reported to him by some local sportsmen. It seems these hunters were headed for Altoona during small game season when they spied a pheasant perched on the coal car of a slow-moving train. A short time later they passed the train again; the pheasant was still there, even though the locomotive was now cruising at 50 mph.—WCO Stephen A. Kleiner, Holidaysburg.

What's In A Name?

UNION COUNTY—During a recent visit, my 6-year-old granddaughter was helping my wife clean the office. I have several animal skulls displayed there that I use for program presentations. An elk skull caught Brandi's attention. "Gram, I know what that one is," she said. "It's a moose." My wife told her it wasn't. She thought for a moment, then said, "Oh, I know, it's a cantaloupe!" It looks like I'll have to get her a mammal identification book.—WCO Bernie Schmader, Millmont.

Cavity Nesting Success

CRAWFORD COUNTY—During last fall's migrations, I witnessed the largest flock of purple martins I'd ever seen—about 200 birds. It seems the Commission's Cavity Nesting Cooperator Program is doing a world of good. Spring is the time to get some boxes of your own, or clean and prepare the ones you have, and join in the effort to help cavity nesting wildlife.—WCO Michael G. Ondik, Saegertown.

SPORT Program Pays Big Dividends

PENNSYLVANIA'S SPORT (Sportsmen Policing Our Ranks Together) program is alive and well as evidenced by the recent arrests and convictions of 10 people involved in major Game and Wildlife Code violations. Stemming from information reported by sportsmen, coupled with excellent investigations conducted by wildlife conservation officers, five people were arrested for baiting and killing black bears during the 1990 season. Another five were arrested for shooting deer out of season. The arrests involved three separate incidents in Centre, Carbon and Monroe counties.

In Carbon County, officers arrested and successfully prosecuted two individuals for the unlawful taking and possession of black bears. The men paid fines and costs totalling \$2450.

According to Carbon County WCO Richard Karper, before the season he and several deputies received information from sportsmen concerning a baited area in Lausanne Township. On opening day, officers inspected the site and determined that three bears had been killed. A sow, shot through the neck, was still in the area, along with evidence two other bears had already been removed. An ensuing investigation resulted in two men admitting they had killed the animals. According to their statements, the men left the largest bear at the baited area and transported the smaller two to another site where they were field-dressed and tagged.

In neighboring Monroe County, the arrest of three men climaxed an investigation following an opening day tip about bear baiting in Paradise Township. WCOs Dean Beach and Tim Conway, along with several deputies, found evidence indicating three bears had been shot over a baited area. In this case, the investigation led to two men

from Dickson City and a third from Bangor. One individual confessed to shooting all three bears over bait and tagging one of them. He was fined \$2400. The other two were each fined \$100 for tagging the others.

In another incident, an investigation conducted by Centre County WCO George Mock and several deputies uncovered evidence in the Rebersburg area that antlerless deer had been killed on the opening day of buck season. Later that evening, following discovery of additional evidence, five men from New Jersey were taken into custody by wildlife officers and state police. The quintet pled guilty to charges of possessing four deer unlawfully taken. District Justice Ronald J. Horner ordered the five to pay fines totalling \$10,000.

Commenting on the cases, Commission Hunter-Trapper Education Coordinator Jim Filkosky said: "It's quite possible none of the cases would have ever been uncovered had it not been for the actions of several concerned sportsmen who cared enough about the rules of fair chase and who took the time to notify wildlife officers about the suspected violations. In each case, a sportsman found what was believed to be illegal activity and promptly reported it to the Commission. In the end, that's what makes the SPORT program so valuable."



Special Regulations Area Enlarged

At the January meeting in Harrisburg, the Commission announced its intention to enlarge the Southeast Special Regulations Area to include all of Bucks, Chester, Delaware, Montgomery and Philadelphia counties. At the same time, the Commission plans to permit treasurers in the special regulations counties—including Allegheny—to sell a person up to four bonus tags and allow them to harvest as many as five deer. The Commission also announced plans to initiate a split deer season in the special regulations counties; the first running December 2–21; the second, December 26 through January 25.

Vogue Elected President

In other action, Edward L. Vogue, Jr., Dupont, was elected Commission president, succeeding Clair W. Clemens of Hatfield. Vogue, appointed by Governor Casey in 1987, represents northeastern Pennsylvania. Edson F. Crafts of Huntingdon is the new Commission vice president succeeding Vogue. Roger J. Wolz of Meadville was elected secretary. The new officers will serve until January 1992.

The executive director announced the selection of former assistant bureau director Calvin DuBrock to succeed Dale Sheffer as head of the Bureau of Wildlife Management. Sheffer retired January 4, following 35 years with the Commission as a research biologist and administrator. DuBrock, a native of New Castle, and a graduate of Michigan State and Virginia Polytechnic universities, was a biologist with the U.S. Fish and Wildlife Service before joining the Commission in 1982 as manager of the agency's wildlife data base project.

The wildlife management staff announced the arrival of pure Sichuan pheasants from the Michigan Depart-



CALVIN DUBROCK was selected to succeed Dale Sheffer as director of the agency's Bureau of Wildlife Management. DuBrock, a native of New Castle, was formerly a biologist with the U.S. Fish & Wildlife Service before coming aboard with the Commission in 1982.

ment of Natural Resources. The birds, 75 hens and 25 cockbirds, will form the nucleus of the first pure Sichuan breeding stock in Pennsylvania. It's possible that, in the future, Pennsylvania may get additional birds from Michigan. Plans call for the first stocking of pure Sichuans sometime in 1993 or 1994.

Proposed 1991–92 seasons and bag limits follow traditional frameworks: archery, Oct. 5–Nov. 1; early grouse/squirrel opener, Oct. 19; general small game, Nov. 2–30; bear, Nov. 25–27; antlered deer, Dec. 2–14; antlerless deer, Dec. 16–18; post-Christmas deer, Dec. 26–Jan. 11, 1992; and spring gobbler, May 2–May 30, 1992.

Saying "Cheese"

IN PHOTOGRAPHERS' parlance, they're "hero" shots. To hunters, they're pictures of "me and my trophy." Everyone with a camera takes them, and everyone who knows a hunter has to look at them. Whether the viewing is a treat or a trial is up to the person who gets to say, "Say Cheese."

You don't need to be a professional photographer, or take any special training to get better photos of hunters and their game. All it takes is a little forethought, common sense, good taste, and one other thing: really looking at what you see through the camera lens or viewfinder. Always remember, the finished photo will show only what is in the viewer, and everything that's in the viewer. Make sure you're getting all that you want, and leaving out all that you don't want, before tripping the camera shutter.

Last winter, a friend showed me photos he'd taken of a massive 10-pointer he'd bagged in buck season. Yes, the deer was nice, if you looked past the fact that it was still on a piece of plastic in the back of a pickup, with a lolling tongue and bloody gash where'd he'd cut to field-dress it. Since my friend wasn't getting the head mounted, those photos and the antlers were all he had. I hoped the antler mount worked out, because the pictures were virtually worthless.

As I listened to the story of the hunt, I realized many photographic and memory-making opportunities had



THE AUTHOR'S HUSBAND, Bob, poses with a handsome whitetail harvested during archery season—an example of a good "hero" photo. There are a number of elements that make for worthwhile pictures, ones that tell the story of a hunt and at the same time are aesthetically pleasing.

been lost. The hunter's youngest son was with him when he shot the deer. Because the boy was a senior in high school, there was no telling how many times he and his dad would be able to hunt together after graduation. Also, it's unlikely the father will ever again find such a trophy in his hunting career. The photos, therefore, could have preserved a very special day for the two of them.

A hunter hero shot is basically the story of the hunt. If it were your tale to tell, what would you want to include? Prime elements of any story are who,

Another View...

by Linda Steiner

what, where and when, and photographs are no exception.

WHO: Include the hunter in the photo, always. Photos of the game alone should be avoided, except as a last resort. Get a companion to take the photo or, if you're hunting alone, ask a stranger. Most folks are cooperative. Include in the photo whoever was hunting with you that day, or maybe just helped drag out the game. By all means pose with your beagle, pointer or retriever. The picture will be a tangible memory when your companions and your pets are gone. It will also be someone else's memory of you.

WHAT: Show the game to its best advantage. Take a moment to wipe away blood, mud and debris; smooth fur or feathers and position the game so the field-dressing slit isn't visible. Tuck in the tongue. Spread the fan of a turkey or grouse. Silhouette light antlers against a dark background, a black turkey beard against something light. Show off wide antlers by taking the picture straight on, and exhibit beam width and point length by turning the head to the side. Hold the deer's head up, but avoid placing both hands around the neck, as if it's being choked.

WHERE: If at all possible, take a camera with you as you hunt. Many cameras, both the "snap" and compact 35s come in models small enough to put in a hunting coat pocket or a day pack. If your camera is too bulky, or you're afraid of damaging it, at least have it in your vehicle. The best photos are taken exactly where the game fell. As a substitute, take them in the field or woods' edge near the car, someplace that tells the type of terrain you were hunting. Include your camp or tent as a background if they figured in the hunt.

If you aren't able to take pictures until you get home, find a place in the yard that looks natural, against a wood pile, stone wall, grassy bank, hedge, pine tree. If you don't have any of those,

select a background as uncluttered as possible: brick, siding, cement. Too many "me and my game" shots show the neighbor's car and his garbage cans as well.

WHEN: The time of year and the type hunting season should be seen at a glance in photos. Have gun hunters pose in their blaze orange coats, archers in their camouflage jackets. Include the firearm or bow. Don't trust to memory alone to remember that you took the deer in muzzleloader season, or that you bagged the double on grouse with gramp's old 20-gauge.

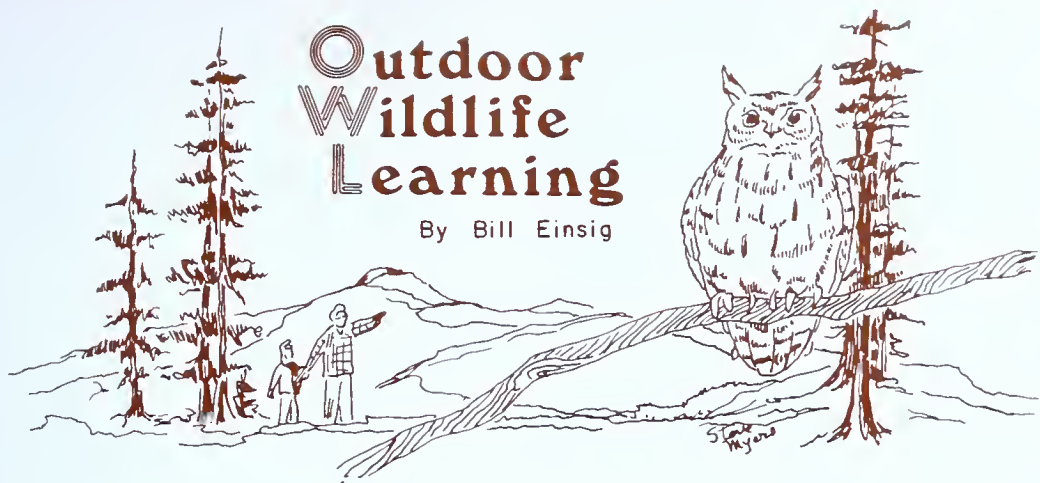
To say which month and what weather, show something typical in the background, red and yellow leaves of fall bow season, frozen laurel and snow of doe season, flowering dogwood in spring grouse season. Even if the pictures are taken at home, you can include blooming ornamentals to say "spring," autumn leaves or snow on an evergreen hedge to say "fall" and "winter."

For realism, take hunting photos in natural daylight. If you must take hero shots after dark with a flash, position the subject close to a solid background. This will eliminate the black "nothingness" that's a backdrop in most flash photos, and will bounce extra light onto the subject.

Though I, too, have made many mistakes in taking hunter hero shots, I like to think I've learned something along the way. Here are some miscellaneous tips that will make your photos more viewable: Get closer. Most "me and my game" pictures show too much grass and sky. Make sure the hunter washes his hands (no blood), and that no cigarettes are dangling from lips. Kneel down next to a deer, and hold small game up toward your face. Try looking at the game, or shaking hands with your hunting buddies, rather than just staring into the lens. And smile, this is a great day.

Outdoor Wildlife Learning

By Bill Einsig



Questions & Answers

Dear Mr. Owl,

My family and I were hiking when we came upon a porcupine resting in a tree crotch. I had never seen a porcupine in the wild before. What can you tell me about this most unusual looking animal? S.B., Danville.

Dear S.B.,

Both male and female porcupines are covered with sharp quills—up to 30,000 of them most experts say—ranging from less than a half inch in some areas of the body to nearly five inches in length on the back and rump. Each quill is controlled by a sheet of muscles that can stand the quills erect or lay them flat against the porky's layer of soft under fur.

Areas not protected by quills are the belly, face and underside of the tail. The soft belly is reputed to be the porcupine's vulnerable spot where experienced predators attack after flipping the "quill pig" onto its back. Fishers—that elusive member of the weasel clan now extirpated from Pennsylvania—are reputed to be adept at the technique. Actually, the fisher attacks the porky's face with repeated bites until the victim is seriously wounded and then begins its meal from the belly side.

Another perennial question concerns the porcupine's ability to "throw" its quills at an adversary. Of course, it does not launch its quills like a flight of arrows at an aggressive dog or bobcat. It waits for the unwary attacker to lunge for its neck and then swipes at the animal's throat, jaw, mouth or face with its dangerous tail. The

quills are loosely held in the porcupine's flesh and are easily pulled loose to remain embedded in the attacker's skin.

Aristotle described the porcupine's ability to throw its quills like darts and, Aristotle was quoted, and misquoted, for centuries. Actually, the porcupine Aristotle saw, if, in fact, he ever saw one, was a different animal than the one we have in North America today.

Dear Mr. Owl,

This may seem like a strange question, but I wonder why I don't see baby squirrels scampering around my backyard as frequently as I see young rabbits? A.K., York

Dear A.K.,

There are at least two important reasons we are not as aware of young gray squirrels as we are of young cottontails. First, young squirrels are born and raised in dens. The squirrels that visit your yard may have a den some distance away and forage for food while the young stay at home. The first training excursions that help young squirrels develop the strength and agility they will need as adults are close to home—either on or very near the den tree. So unless the den tree is near your home, you may not notice young squirrels as they scamper about.

Neighborhood cottontails, on the other hand, are usually born in ground nests in a nearby field or even in your lawn where the grass may be a bit longer than usual. As they grow and leave their nests, you are much more likely to see them at a

younger age, when they are noticeably smaller than their parents.

The second reason young squirrels often escape our attention is that we frequently overlook them and fail to critically observe their size. That great fluffy tail is a great deceiver. It catches our attention so thoroughly at times that a casual observer

assumes all squirrels are the same size. Sometime this spring, there will be more than the usual number of squirrels in your yard. When that happens, look carefully at each to see if there is a size difference. You'll probably find you have three to five somewhat smaller young squirrels and one or more adults.

Planting for Wildlife Sales

Sales of the agency's popular seedling and seed mix continue this month. The seedling packet (three each of white pine, white spruce, Washington hawthorn, American bittersweet and Callery pear) and seed mix packet (a 10-pound bag of dwarf grain sorghum, millet, buckwheat, and dwarf hybrid sunflower) are an excellent way for landowners to provide food and cover for wildlife. The seedling packet sells for \$3, the seed mix for \$2. The following county by county listing of sale locations, dates and times was available at press time. Watch local newspapers for possible additional sale sites and times.

Adams—Gettysburg Square, April 19, noon to 4 p.m., and April 20, 8 a.m. to noon; **Huntingdon**—Southcentral Region office, Huntingdon, April 20, 8 a.m. to 4 p.m.; **Westmoreland**—Southwest Region office, Ligonier, April 19, 8 a.m. to 6 p.m., and April 20, 8 a.m. to 2 p.m.; **Cambria**—Richland Mall, Johnstown, April 26, 6 p.m. to 9 p.m., and April 27, 10 a.m. to 6 p.m.; **Allegheny**—North Park Boat House, North Park, April 13, 10 a.m. to 2 p.m.; **Butler**—Clearview Mall, April 19, 5 p.m. to 9 p.m., April 20, noon to 5 p.m., and April 21, noon to 5 p.m.; **Crawford**—Pymatuning Visitor Center, April 20–28, 8 a.m. to 4 p.m.; **Erie**—Millcreek Mall, April 21, noon to 5 p.m.; **Jefferson**—Brookville County Courthouse, April 19, 4 p.m. to 8 p.m.; Punxsutawney Riverside Market, April 20, 1 p.m. to 4 p.m.; **Venango**—Northwest Region office, Franklin, April 22–24, 10 a.m. to 2 p.m.; **Clearfield**—DuBois Mall, April 19–21, 5 p.m. to 9 p.m.; **McKean**—Main Street, Mt. Jewett, April 27, 10 a.m. to 2 p.m.; **Monroe**—Stroud Mall, May 3–4, 10 a.m.; Mt. Pocono Public Library, May 3–4, 10 a.m.; **Carbon**—Mauch Chunk Lake Park, May 3–4, 10 a.m.; **Bradford**—Troy and Canton, May 3–4, 10 a.m.; **Susquehanna**—Montrose and Hallstead, May 3–4, 10 a.m.; **Sullivan**—Dushore, May 3–4, 10 a.m.; **Montour**—Montour Preserve, May 4, 1 p.m.; **Luzerne**—Susquehanna Riverlands, Berwick, May 5, 1 p.m.; Dorrence Township Municipal Bldg., May 3–4, 10 a.m.; Northeast Region office, Dallas, May 3, 8 a.m.; **Lackawanna**—Jamesway Plaza, Taylor, May 3–4, 10 a.m.; **Berks**—Southeast Region office, Reading, April 8–19 (M–F), 8 a.m. to 4 p.m.; **Dauphin**—Mummerts Texaco, Harrisburg, April 19–20, 10 a.m. to 6 p.m.; Colonial Park Mall, Harrisburg, April 19–21, 10 a.m. to 6 p.m.; Dauphin County Anglers, Clarks Valley, April 19–21, 10 a.m. to 6 p.m.; Brady Sporting Goods, Millersburg, April 19–21, 10 a.m. to 6 p.m.; Commission headquarters, Harrisburg, April 15–19, 8 a.m. to 4 p.m.; **Lancaster**—Middle Creek Visitors Center, April 19–20, 8 a.m. to 4 p.m., and April 21, noon to 5 p.m.; Buck Hardware Store, Buck, April 25–26, 5 p.m. to 9 p.m., and April 27, 8 a.m. to noon; **Montgomery**—St. Lukes Church, Zieglersville, April 13, 9 a.m. to 1 p.m.; Green Lane Reservoir main office, April 27, noon to 3 p.m.; Pennypack Watershed Association, Edge Hill Road, Huntingdon Valley, April 20, 9 a.m. to 4 p.m.; **Northampton**—Palmer Park Mall, Easton, April 17–20, 10 a.m. to 9 p.m., and April 21, 11 a.m. to 5 p.m.

MANY FOLKS think my job is seasonal. They often ask, "What d'ya do after the huntin' season's over?" If you have been a regular reader of this column, you no doubt realize there is no "off season"—only busy, busier and busiest times of the year for wildlife conservation officers.

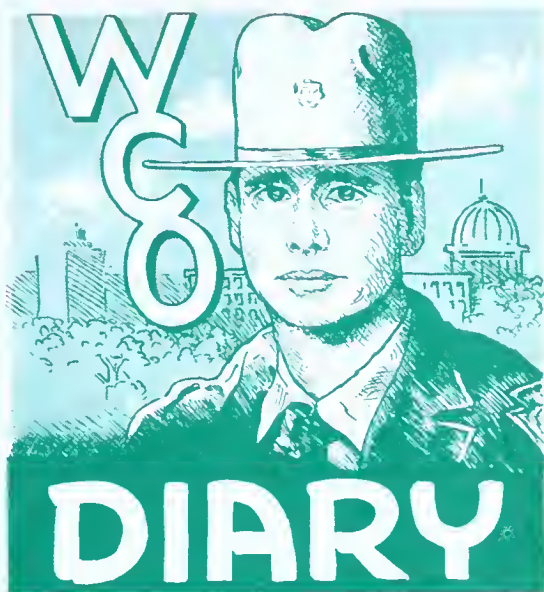
April is no exception. Emphasis on educational activities continues, especially with the onset of another hunting season—spring gobblers. A typical day may find me combining patrol or law enforcement duties in the mountains, followed by a program or presentation in Harrisburg. This district certainly offers variety.

An additional bonus for the month is the observance of a resurrected environmental milestone—Earth Day. Originating in 1970, the concept of this day of awareness has been overshadowed by consumptive lifestyles that give little thought to sustainable living.

With the dawn of the '90s, new emphasis has been given to recognizing our interdependence to the environment and all the living plants and animals with which we share our planet. While only a handful of thoughtful folks have continued to observe it since its inception, Earth Day has gained new momentum and blossomed into a national media event. This renewed interest in good ol' "Mom Earth" sparks new vigor into professionals representing agencies and organizations that manage environmental matters.

Wildlife conservation officers were among those who felt a sense of joy that the world was once again taking notice of our environment. As a result of this heightened interest, I enthusiastically welcomed the opportunity to present an array of educational programs on the state's wildlife. I hope this level of interest continues to swell until the concept of a healthy environment becomes firmly entrenched in today's society.

APRIL 4—Late winter and early spring are the most stressful times of the year for wildlife populations. Food supplies are at low levels, often resulting in a weakened condition for certain species of wildlife. Snow compounds this problem, requiring increased energy to journey in search of food and shelter. A high level of activity may deplete vital fat reserves. It is at this time of year that all terrain vehicles, snowmobiles and free roaming dogs



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

chasing wildlife are especially likely to cause fatal results for pursued animals.

After completing some reports at headquarters and then disposing of a road-killed deer, I investigated just such a dog/deer incident. Workers at the Pennsy Supply quarry in Hummelstown found several dead deer that had fallen over the quarry's north wall. Earlier they witnessed a large black dog pursuing some deer in the nearby fields. While no one actually saw the deer falling into the quarry, it was fair to assume that during the heat of the chase the deer, in their attempts to escape, fell to their deaths.

I wasn't able to locate the dog, but I had a good idea from which neighborhood it may have come. I alerted my deputies to be watchful when passing through the area for this particular canine.

APRIL 5—Quite a frosty morning, but I have a wanderlust that takes me out of my district and into the northern part of the county. After patrolling parts of SGL 211 in Stoney and Clark's valleys, I travel farther north to assist Fish Commission Waterways Conservation Officer Barry Mechling stock trout in some of the beautiful brooks and streams that this county has to offer. Barry briefs me on areas of particular concern prior to the opening of the trout season later this month. He has recurring problems with some folks taking trout prior to the opening day. I'm all



Question

May I drive my ATV on state game lands roads posted as being open to public travel?

Answer

No. Vehicles utilizing state game lands roads must be licensed or authorized, according to the vehicle code, for operation on public highways.

too happy to help, and make a note to increase my patrols in these areas.

Many times in recent history, efforts have been launched to combine the Fish Commission and Game Commission into one agency. While current administration of our current fish and wildlife management strategies may have some shortcomings, combining the agencies offers no solution. Being separate allows each agency to focus its expertise to better manage these treasured resources. Historically, the agencies have and will continue to cooperate in various tasks.

APRIL 7—The morning finds me indoors with a combined Scout group from the greater Harrisburg area. This is the second of a two-part program I am conducting to provide the group with insight on the nature of my profession and, ultimately, what activities they can become involved in to benefit wildlife. Unfortunately a heavy snow squall keeps some of the Scouts in their “bunks,” making attendance less than expected.

Later, Deputy Bob Schmitt and I launch our patrol boat and cruise the Susquehanna River. Although waterfowl seasons have long passed, I know spring migrations have significantly increased waterfowl numbers and could provide easy pickings for unsavory characters. I’ve long believed that “you can’t catch ’em if

you aren’t out there.” Patrol levels obviously peak during the hunting seasons, but to be in touch with the pulse and happenings of a district, an officer must maintain a constant vigil throughout the year.

During the afternoon, Bob and I check a few fishermen, but otherwise things are quiet. We are, however, treated to a cornucopia of ducks and geese. Impressive flights of mallards, black ducks, bluebills, ringnecks, buffleheads and goldeneyes abound. Geese are seen nesting on every available dry spot, and shorebirds and gulls add to the sights. This is a great time of year for waterfowl enthusiasts to be out and about, but we were the only spectators.

APRIL 9—Each year the Commission gathers its field force for in-service law enforcement training. WCOs from around the state receive updated information and instruction in state-of-the-art law enforcement methods. Today I join my fellow officers in Mechanicsburg for such a workshop. Presented are many valuable thoughts and ideas centered on the art of interviewing suspects, and each officer gleans those techniques and procedures that best suit his or her needs.

APRIL 10—This morning, Commission biologist Fred Hartman and I travel to the magistrate in Cleona, Lebanon County, to prosecute a Hershey fellow for an improperly tagged deer. While checking deer at area processors, Fred found a doe that had a tag from a previous year’s license attached to its ear.

After some investigative work, I determine that the tag belonged to someone other than the person who had killed the deer. The defendant claimed he had simply made a mistake and attached the invalid tag rather than his tag.

I’m extremely skeptical, finding it hard to believe one could accidentally attach another person’s tag, let alone a tag from a previous year’s license. The magistrate shares my sentiments, and the defendant is found guilty as charged.

Afterward I travel to SGL 145 and pick up a load of seedmix to be given to cooperators enrolled in our Safety Zone program. The mix, a special blend of sorghum, sunflower, millet and buckwheat, is made available to cooperators and the public for annual food plot plantings. The resulting mature seedheads are espe-

cially attractive to game and songbirds when planted in obscure field corners or near wooded areas.

The day ends with a nighttime call from my regional office in Reading. I'm told a deer, the victim of a speeding automobile, lies injured along a major roadway in Susquehanna Township. Upon arrival, I find the animal had extensive injuries and was killed by the local police. While no remedy readily exists for such mishaps, a liberal dose of common sense and caution while driving rural areas at night will aid motorists in minimizing the chance of such collisions and reduce the unnecessary loss of these magnificent creatures.

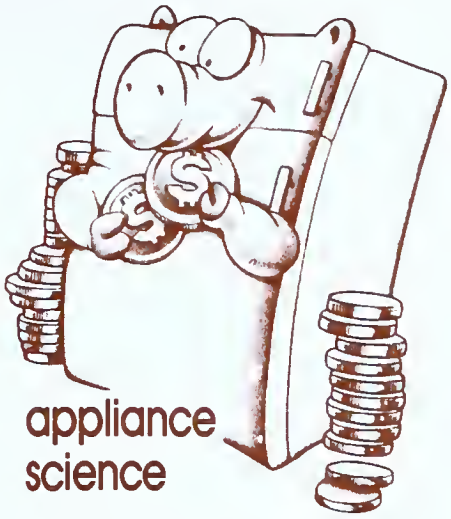
APRIL 12—Everything must be just right. Generally, just after sunset is best. Can't have any sizable rain, although a drizzle is okay. April is the best month, but temperatures must be above 40°F. Not too much wind, either, or you won't hear it. Park yourself in a dank stream bottom area and don't move more than necessary. Scattered low cover of alders and hawthorns with some open areas interspersed is considered their bailiwick. Then just wait, watch and listen.

There; hear it? Listen again. "PEENT" . . . "PEENT" . . . There! Over in that hollow. "PEENT" . . . "PEENT" . . . There it is again.

A twitter of fluttering wings sends the little showman skyward in one of nature's most peculiar and entertaining dramas. The courtship flight and display of the male woodcock has been recorded, filmed and penned in verse by many. Tonight I'm conducting my annual woodcock singing grounds survey. Each year, selected officers around the state keep a tally of the number of male woodcocks they hear singing along established survey routes. The purpose is to provide Commission biologists with data that will reflect population trends of this distinctive little game bird over an extended period of years.

Assignments and duties like this make a WCO's job varied and rewarding. Many officers have degrees in wildlife management or biology, and survey activities are eagerly anticipated each year.


Later, the district's deputy force assembles for another training session. Having the agency's headquarters complex in my district is a luxury no other WCO has. I make full use of the facility for deputy training, as well as hunter education




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courses, educational programs and other support services.

Tonight's agenda is quite varied; we cover 21 topics ranging from law enforcement, hunter education, public relations and land management, to information and education activities. The deputies' responsibilities are as varied and interesting as mine, and they welcome the opportunity to become fully involved in the Commission's activities.

APRIL 19—Today is a day I have long awaited. I have the pleasure to present a day-long series of conservation education programs to the entire West Hanover Elementary student body and to a portion of the Northside Elementary School. The theme of the presentations revolves around Earth Day and focuses on the needs of Pennsylvania's wildlife.

With much media attention given to re-

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For a Friend . . .

cent oil spills, solid waste woes, and the continuance of air and water pollution, the students are keenly aware of wildlife's plight in the face of a degrading environment. Each grade level gathered individually on the front lawn for my presentation. The warmth of the sun's rays, the sweet aroma of springtime greenery, together with an array of mounts and props I had assembled to enhance my topic, served to drive home the concept that all living things are interdependent upon each other and this planet for survival.

Reaching our youth, and thus our future, may be the best approach to environmental education. Adults sometimes lack the interest or motivation to embrace the environmental movement. Perhaps we as a society have grown too accustomed to our luxurious standard of living and are fearful of the penance required to nurse our planet back to health.

APRIL 21—Deputy Schmitt and I expend some calories and boot leather as we trek across the Blue Mountain in Middle Paxton, Lower Paxton and West Hanover townships in search of turkeys and turkey hunters. Today marks the beginning of the spring gobbler season, and my district has a bountiful population of birds in its mountains.

A bit of fog and a light rain hamper visibility, but we enjoy our patrol nonetheless. I'm an advocate of patrolling by foot rather than by vehicle. We pride ourselves on the amount of contact we maintain with those who utilize our fields and forests. Many violations that would otherwise go undetected are encountered on our patrol hikes.

This morning we didn't encounter any hunters on our hike, but we did hear several shots fired across the valley in the area of SGL 211 and Second Mountain. Later we speak with several gobbler hunters in that area, but no one knows of any birds that have been bagged.

The foul weather clears a bit, and the afternoon finds Deputy Bob Landon and

me manning the Commission's mobile exhibit trailer. We're participants in an Earth Day rally at the Paxton Square Mall in Harrisburg. I couple the rally with an ongoing agency conservation program: Plantings For Wildlife. For the past several years the agency has been offering seedling packets featuring a variety of tree and shrub species. The seedlings are grown at our Howard Nursery facility in Centre County and are valued as food and cover producers for wildlife. Each packet contains 15 seedlings, including Washington hawthorn, American bitter-sweet, white spruce, Callery pear, and white pine. The bundle is sold for \$2, an unheard of bargain by today's standards.

Before the day is over, hundreds of seedling packets, numerous bags of seedmix, plus a variety of books and publications are sold. Our location is one of several found around the district; deputies and local chapter members of the Pennsylvania Federation of Sportsmen's Clubs are just as busy selling these items.

This is only one of the many programs the Commission sponsors to benefit our wildlife resources. The sales success is further bolstered by the throngs of people who turn out for the Earth Day rally. I share in the hope that such events become an annual happening in communities around the state and nation. Grass roots participation will be most beneficial to local wildlife populations.

APRIL 25—A bright and breezy spring morning finds me back on the program circuit again, surrounded by an inquisitive group of preschoolers at the Jewish Community Center in Harrisburg. When working with energetic groups of youngsters such as this, an instructor needs to be creative and keep his audience involved. I rely on my "feely box" to assist me in engaging the attention of young audiences.

The feely box has a portal on one side that allows little hands to enter and feel the contents hidden within. Each student in turn guesses what the object may be and, more importantly, what value it might have to wildlife. Various plants, foods, tufts of fur, or feather shafts may find their way into my box. The answers I sometimes get can be hilarious, and the children's innocence is most enchanting.

Afterward, each group is given the opportunity to burn off excess steam in a

rousing learning game adapted from the Project WILD series of learning activities. While preschoolers may not have the insight older children possess, I won't overlook the opportunity to instill an awareness and appreciation for Pennsylvania's wildlife to any interested audience. Tomorrow, I'll return to meet with the remaining groups of children.

APRIL 28—More foot patrols in the mountain areas of Fishing Creek Valley. While making many contacts with hunters and hikers, I check a successful fellow who lured a young tom into shotgun range. The camo-clad gentleman is pleased with his trophy and applauds the agency on providing such hunting opportunities on the ridges that shadow Harrisburg.

Later, I need to do some follow-up investigative work for WCO Jim Brown of Perry County. Jim had found an illegal dump site near his headquarters, and the culprit's trail points toward Harrisburg.

After sifting through a pile of building scraps and debris, Jim found a dated utility bill for an uptown property in the city. The bill has a customer number but no name. Sure enough, after I track down the address, the rowhouse is currently being renovated. The owner later clues

me as to the identity of the contractor involved in the renovation.

Seems the painter involved resides in Perry County, and chose to deposit the building rubble on state forest lands near his home, rather than properly disposing of the trash. Jim and I make plans to contact him at his job site to explain the charges and his options for settling the matter.

Near midnight, my earlier prediction of an increase of bruin activity in the district begins to take shape. Deputy John Flory is summoned to assist the State Police handle an injured black bear struck by a passing motorist. The bear had traveled through quite a stretch of highly developed real estate near Harrisburg and its suburbs before coming to rest near the Conewago-Londonderry township line south of Hummelstown. Most remarkably, no one had received any recent reports of a bear anywhere in the district.

Later, the carcass was transported to the regional office in Reading where further study indicated the animal was an adult male weighing about 200 pounds. No ear tags were present, and the animal's origin remains a mystery. Little did I realize that this wayward boar was a vanguard of bear problems to come.

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RICK RISHELL, director of the Orvis Upland Shooting School, is a tall, sandy-haired man in his 30s. An upland hunter himself, with a Brittany in the back of his pickup. Rishell. The name—and the accent—sounded familiar. “Are you from Pennsylvania?” I asked.

He grinned. “Altoona.” He said he had arrived in Manchester, VT, where Orvis’s home store is located, via Buffalo, where he worked in a retail store in the Orvis chain. He has a cabin in Potter County, where he returns for fly fishing. (He also directs Orvis’s Fly Fishing School.) His uncle, Jim Rishell, lives about two miles down the road from my house.

With the world established again as a pretty small place, we got down to business: I was on assignment in Vermont to attend and report on the Orvis Shooting School, in operation since 1973. The program is based on the premise that wingshooting, like any other physical skill, can be taught. To play a better round of golf, one hires a

pro. Shooting? Some hunters think it’s a natural trait: One is either born a good wingshot, or not. “I can take a person of average coordination who has never fired a shotgun,” Rishell said, “and have him or her breaking clay targets regularly in one day.”

The Orvis school teaches what is known as “instinctive shooting.” This uncomplicated theory of wingshooting originated in Britain and relies on the basic human ability to point—in this case not a finger but the entire left hand, wrapped around a shotgun. The shooter does not aim, does not even look at the gun’s muzzle, and does not calculate a “lead,” or forward allowance, for the shot. The shooter simply concentrates on pointing at the bird.

I was one of 16 attending the course. Before going shooting, we sat down to view a film, made by the Holland and Holland Company, an English manufacturer of fine shotguns. The film featured an intent, almost grim-looking gray-haired Englishman, outfitted in plus-fours. Despite his comical serious-



ness and pipestem shanks clad in loud knee socks, he was a terrific wingshot.

The film explained the necessity of a well-fitting stock. It demonstrated proper gun mounting, gun handling and footwork. It stressed keeping both eyes open: With one eye shut, the ability to judge distances is lost and the whole system of instinctive shooting breaks down. The gray-haired Englishman, both eyes resolutely open, powdered one clay after another.

After the film ended, we drove to the shooting grounds. First, Rishell gave a lecture on gun safety. Only the instructors would load the guns. "They'll spoil you," he warned. "You'll want somebody else to do all your loading when you get home and go hunting." When not shooting, students would sit on benches behind the firing line. All would wear hearing protectors, and glasses to protect against stray pellets.

We shot in groups of four: four shooters to one instructor. My group began at Station 2. We were a retired textile manufacturer from Connecticut, the



vice chairman of a Madison Avenue public relations firm, a salesman in the Orvis store, and me.

The textile manufacturer led off—a tall, solid, white-haired gent, who said he had attended the school twice before. He missed a few, then began hitting. Next came the Madison Avenue ad man, gray-haired, lean, almost haggard-looking, with the bad habit of neither shouldering nor cheeking his gun properly: When the shotgun went off, the stock would thump him on the bicep and whack him in the cheekbone. The instructor worked hard at getting him to mount the gun smoothly. Then the Orvis salesman shot; he seemed in synchrony with his shotgun, and said he was a grouse hunter.

It was my turn. I wiped a drop of perspiration off the back of my neck.

The first shots were easy straight-ways. No problem. Catch them 15, 18 yards out, a cloud of spinning orange chips. This was fun. I broke another. And another. The instructor moved me farther from the bird thrower, making the shots longer, with the clays angling swiftly across in front. I broke the first bird. Broke another. Chipped the next. Missed. Chipped one.

"You caught him in the tail. Swing faster."

I tried to make myself swing faster, and lifted my head off the comb of the

stock to see what was going on. Missed. “Know what you did?” the instructor said. “You shot over.”

I nodded. The electrically operated trap went *chunk* again, and the clay was sailing through the air above the clipped grass. I shouldered the gun, swung on the target, missed — “Behind,” the instructor intoned. He was a short man in his 30s. He had an intense, almost conspiratorial style. He got his face in mine, stared into my eyes, and told me to imagine on my next shot that I was going to shoot at the beak of the bird. “Swing through him. Don’t stop your swing. Come up from behind, swing through, and pull the trigger when you’re right on his beak.”

Chunk. Shotgun rising, swinging, trigger pulled — another miss.

Chunk. Boom. Miss.

“Okay,” the instructor said. “Don’t want to get you too far out of the groove. You’re a good instinctive shooter. Try not to think as much.”

We changed stations, walking along a path carpeted with yellow leaves.

Next, a trap hidden behind a wall of brush launched clays that sailed toward us. Two sorts of shots: a longish left to right, the target zipping toward a bank of conifers; and one where the bird suddenly appeared above the brush and swept overhead. For the overhead, you had to lean back and bring the gun up from underneath.

Fun Games

“Know These Wildlife Terms?”

By Connie Mertz

1. Match the following terms with the proper definition.

- | | |
|-----------------|---|
| A. COLONY | _____ gnawing animals |
| B. PRECOICIAL | _____ terrestrial birds consisting of hens and cocks |
| C. COVEY | _____ gathering of birds making up single unit |
| D. MARSUPIAL | _____ family consisting of parents, yearlings and young |
| E. PLANTIGRADE | _____ young birds or mammals able to leave the nest after hatching or birth |
| F. RODENT | _____ animal spotted with different colors |
| G. PIEBALD | _____ mammals with a pouch for young |
| H. GALLINACEOUS | _____ flatfooted |

2. Match the following with the proper terms:

- | | | | |
|-----------------|--------------|---------------|--------------|
| _____ turkey | _____ beaver | _____ quail | _____ grouse |
| _____ squirrels | _____ bear | _____ opossum | _____ deer |

Answers on page 64

"Remember to follow through," the instructor told us. "Really swing *through* the bird, and after you shoot, keep on swinging. It ought to be one fluid motion."

The clay sailed over, black against the sky, the shotgun pursued it, swept through it, and chips were raining down.

By day's end I had burned probably 250 rounds. This included a session at a patterning board, where, from 10 yards away, I shot at a grouse silhouette using a "try gun" with an adjustable stock. I shouldered the gun and shot; Rick Rishell fiddled with the stock; I shouldered it again, he twisted a screw, and so on until the gun felt comfortable and the pattern of my shots was consistently centering on the point of aim. Rishell wrote out a sheet with my ideal gun-stock measurements: length of pull, 14 inches; comb, 1½ inches; heel, 2¾ inches; cast, ⅛ inch off. (Thanks to the classroom time I knew what these figures meant.)

I spent the evening in my hotel room reading *The Orvis Wing-Shooting Handbook*, by Bruce Bowlen. The English method, Bowlen notes, "relies on the eye's instinctive capabilities and a gun-mounting style that will incorporate lead into the swing without conscious thought. The gun-mounting technique is designed to create sufficient momentum in the gun and the shooter to carry the muzzle through the target and automatically establish the correct lead. . . .

"The theory is that the speed of the target will determine the amount of momentum in the swing. A fast-moving target will require the shooter to swing his body and gun rapidly and thereby develop sufficient momentum to carry his gun well beyond the target as the shooter fires."

I understood the theory. Putting it into practice was another matter. Nevertheless, on the second day I broke more than half the clays I shot at, even though the chances were made increasingly difficult, with shots at tricky doubles and acute angles.

GAMEcooking Tips

Pheasant Madrid

- 2 tsp. garlic powder
- ½ tsp. oregano
- 1 tsp. cinnamon
- 2-3 pheasants, split in half
- marinade
- 4 cups hot and spicy tomato juice
- 1 medium onion, diced
- 1 lemon, sliced, zest removed and reserved
- 1 bay leaf

Combine seasonings and rub into all surfaces of pheasant halves. Place pheasant flesh side down on a baking dish. Pour tomato juice over pheasant. Sprinkle with diced onion and cover with lemon slices. Divide zest equally among the pheasant halves, making sure each half receives some zest. Add the bay leaf to the baking dish. Allow to stand at room temperature two to three hours. Bake in marinade at 300° for one to 1½ hours depending on size of pheasants. Test for doneness by moving leg. If leg moves freely, the bird is cooked. Discard bay leaf before serving.

Serves 4-6

—FROM FISH AND FOWL
COOKERY, THE OUTDOORSMAN'S
HOME COMPANION,
BY CAROL VANCE WARY

I think the instructors figured out that it was hopeless to try to get me to intellectualize on how I might correct my mistakes. Rather, they just told me what I was doing wrong, where I was missing, and let me readjust on the next shot. They stood right behind me, and from that vantage point could actually see the cloud of pellets missing over, under, or behind (never in front of) the clay bird.

"We get all different levels of shooters," Rishell told me later. "With a beginner, our main task is to keep him or her interested. If we handled it wrong,



we could turn people off in a hurry. We *do* get people who have never fired a gun in their lives.

"For the more experienced shooter, we want to get rid of bad habits and strengthen good ones. We want to expose hunters to targets within reasonable shooting ranges. That way they'll get in the habit of shooting at game when it's in range, and wound fewer birds.

"We teach 300 shooters a year. Most are from the Tri-State area—Connecticut, New York and New Jersey—although we also get a lot of quail shooters from down South. Most are in the upper 10 percent income bracket. That's not to say that other people don't attend the school as well," Rishell said. "When it comes to concentrated, several-day packages, we're the only game around."

We shot for three days. We were challenged by birds at all angles, from all directions, singles, doubles, crossing shots, birds launched from a 45-foot tower—the gamut of chances one might encounter in the wild.

The last session was on a fine, brisk morning, with the leaves showing their

bellies; it made me want to keep on walking past the trap, enter the brilliant October woods, and hunt. The final exam was the Quail Walk, where the shooter tries for birds launched from the brush on each side of the trail.

"We'll keep score this time," the instructor said. I broke 13 of 25. "Better'n half," he said, grinning. "Do that in the grouse woods and you'll have a great season."

The Orvis Upland Shooting School offers a two-day session for \$775 and a three-day session for \$950. Two-day sessions run from mid-July through August; three-day sessions go from early September through mid-October. Registration fee covers shotshells, clay birds and a copy of *The Orvis Wing-Shooting Handbook*. It includes lunch each day, but not lodging.

Students should bring raingear, a comfortable hat, a sweater or heavy wool shirt, and outdoor footwear (sturdy shoes or light boots). You may use your own shotgun or borrow an Orvis gun; Orvis supplies free hearing protectors, shooting glasses and recoil protectors.

According to school coordinator Alan DeNicola, the school's popularity is increasing; last year he had to turn away more than 100 people who tried to book too late. He suggests reserving by early April. The most popular sessions run from mid-September through early October, when the foliage is changing. "Your best bet is to book over the phone," DeNicola says, "to confirm open dates on the spot." He can be reached at (800) 548-9548, and can also answer questions about the Orvis Fly Fishing School.

Order *The Orvis Wing-Shooting Handbook* through the company's catalog, available by telephoning (800) 548-9548, or by writing to Orvis, Route 7A, Manchester, VT 05254.



Helen Lewis

THIS WHITE-TAILED BUCK fell to the bow of Gordan Crissman, Kittanning. Sportsmen are hunters, not killers. While a dead animal is to some extent a measure of a hunter's success, there is much more to the experience. The sport is often misrepresented and thus misunderstood by many nonhunters.

Hunting sport targeted by . . .

Anti Archers

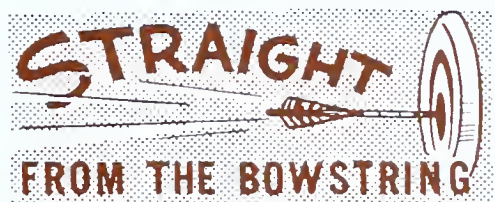
By Keith C. Schuyler

BEFORE OFFERING my opinions about anti-hunters in this country and elsewhere, let me reiterate this previously stated belief: "Hunting, per se, needs no defense." That's not to say the behavior of some individual participants may, at times, not be open to justified criticism.

Nonetheless, it's apparent that any move against the utilization of wild animals for any purpose is likely to center on hunting with the bow and arrow. All hunting suffered with the elimination of cougar hunting in California last year. A move to eliminate bear hunting with guns in that state was defeated, but at the same time legislation to ban archery hunting for bears was sustained.

Anti-hunting groups target bowhunting because the smaller number of participants makes it more vulnerable. Illinois is high on the list for anti-bowhunting action this year because, it is felt, archers there are not well organized.

Trappers lost out in New Jersey a few years ago, but archers there beat a similar move to outlaw bowhunting. The antis will be back, though, and if these





THE HUNTING FRATERNITY, nationwide, numbers about 20 million people. In recent years the sport has come under increasing attack, and the pressure is greatest on the bowhunter. The anti-hunters are becoming well-funded and better organized, and it's up to us to ensure the sport remains part of the American scene.

opponents of hunting are successful, gunning will certainly be next.

The difference between hunting and other outdoor activities is that the fundamental objective is predicated upon taking the life of a living creature. We all know the countless benefits that accrue to the bowhunter, those that make a success out of any sojourn afield regardless of whether the bow is ever drawn.

We are hunters, not killers. If killing was the criterion upon which success was gauged, it's hard to imagine anybody would suffer the physical exertion and exposure to all kinds of weather to measure our abilities against the quarry. And for those who do not fit the description of a sportsman, we try to limit their activities by law.

Historically, hunting has seldom, if ever, been a source of much contention. Hunting, particularly with bow and arrow, has been an accepted—and nec-

essary—activity long before the advent of written history.

When the hand-held spear and atlatl were replaced by the arrow, the fact remained that the new missile was in itself less effective than the heavier spearhead. Of course, the hunter could now store energy in the bow for release at will, and he could now kill at longer distances—with greater accuracy and more safety to himself. A further benefit, and not one to be taken lightly back then, was the fact that the arrow was equally efficient against enemies in the next valley.

In the not too distant past, killing animals was as natural to sustain human life as breathing. The advent of crop cultivation to supplement wild food sources certainly was not conceived as a humane program to spare wild creatures; it was merely a matter of convenience and necessity, depending upon the availability of game.

IF KILLING animals was the only reason we went hunting, it's very doubtful we'd subject ourselves to the physical exertion and exposure to the elements the sport frequently requires.

To my knowledge, Moses provided the first written opinion, in the 13th century B.C., on the use of wild creatures by man. In the *Good News Bible's* Old Testament, Deuteronomy 15:22, he said: "You may eat such animals (domestic) at home. All of you, whether ritually clean or unclean, may eat them just as you eat deer or antelope."

As firearms weren't invented until much much later, it must be assumed that the "deer or antelope" were taken with bow and arrow. The first record of conservation was an admonition by Moses in Deuteronomy 22:6, again from the *Good News Bible*: "If you happen to find a bird's nest . . . You may take the young birds, but you must let the mother go. . . ." It must be assumed that the young birds were for an upcoming meal. Incidentally, according to English records, the first use of gunpowder for firearms was for a handgun that, interestingly, fired an arrow.

The anti-hunting element is well funded, largely by otherwise well meaning do-gooders who feel they are simply helping to make the world a better place. In truth, though, they are victims of half-truths and manipulations of law by antis. Some extreme groups place animals on the same level of importance as your children. The head of one group has gone so far as to say: "Animal liberationists do not separate out the human animal—so there is no rational basis for saying that a human being has special rights. A rat is a pig is a dog is a boy."

Some activists will (a matter of record) risk life and cause thousands of dollars in damage through destruction of medical experiments where animals are utilized. The attempts of others who have tried to discourage hunters and hunting afield have led to laws against hunter harassment in well over half the states, including ours.

Last year, the Mountain Lion Protec-



tion Foundation, with the help of several well-known celebrities and corporate sponsors, managed to outlaw hunting this species in California. If the animals become too abundant, under the new law expert riflemen will be hired to reduce their numbers.

As I said earlier, bowhunting for bears was also stopped in California and, in retrospect, many believe the antis succeeded because not enough hunters voted against the California state referendum that outlawed the sport.

Last year alone, the Wildlife Legislative Fund of America examined 34 pieces of proposed trapping legislation in 16 states, 47 hunting-related bills in 23 states, eight bowhunting bills in seven states, and 26 dog bills in 19 states.

Pennsylvania, which has more hunters than any other state in the nation, appears currently to be relatively safe from any major anti-hunting legislative effort. But the future here and elsewhere depends upon personal involvement. The antis are well heeled



DESPITE the many technological improvements made to the bow and the arrow it shoots, archery is still a primitive hunting method. It was once the sole means of killing animals for food.

If we want to continue to enjoy our hunting sports, each of us must support organizations dedicated to that end. The Pennsylvania Trappers' Association, for instance, has begun its own program to combat the antis' propaganda.

There are a number of national organizations fighting to protect hunters' rights. They include the Wildlife Legislative Fund of America, National Field Archery Association, National Archery Association, Pope and Young Club, Professional Archers Association, National Shooting Sports Foundation and National Rifle Association.

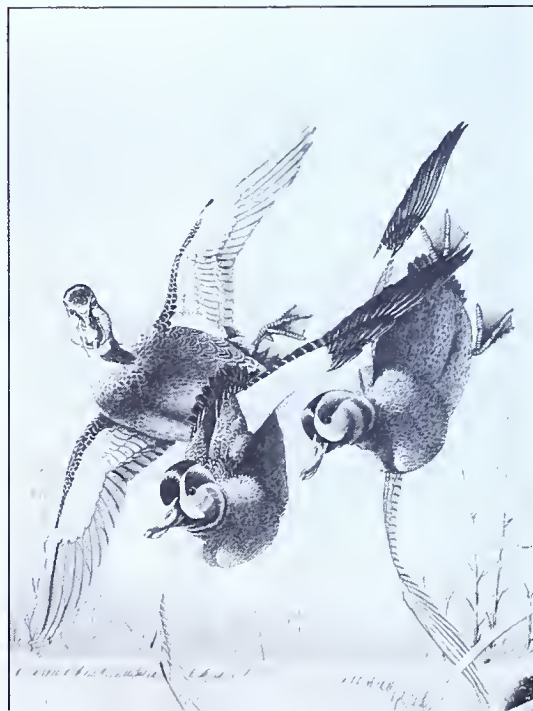
As individuals, in addition to giving financial support to pro-hunting and pro-archery organizations, we must be forever conscious of the image we present. No longer can we take for granted the privilege that was a necessity of our forefathers.

This privilege has an individual price.

financially and use sophisticated techniques. Their latest ploy is to require game officials to prove by studies that hunting for each individual species is justified.

The anti-hunting factions in this country can no longer be perceived as "little old ladies in tennis shoes." They are well organized, well financed and well supported. Further, although still a minority, they generally have the media on their side.

GERRY PUTT is offering limited edition prints of this month's cover, featuring blue-winged teal, right, and the green-winged teal used on our September 1990 cover. Each edition is limited to 250 signed and numbered prints, including 60 pencil remarques. Image size is 13½ x 19½ inches, with ample margins. Prices are \$140 each, delivered; remarques are \$270. Matching numbered prints are available. Order from the artist at P.O. Box 184, Boiling Springs, PA 17007.





HANDLOADING CAN BECOME a very involving hobby, one that has as its rewards self-satisfaction and good-shooting ammo. But the handloader can't necessarily obtain major advantage over the hunter who uses factory ammunition.

Handloading Facts

by Don Lewis

Photos by Helen Lewis

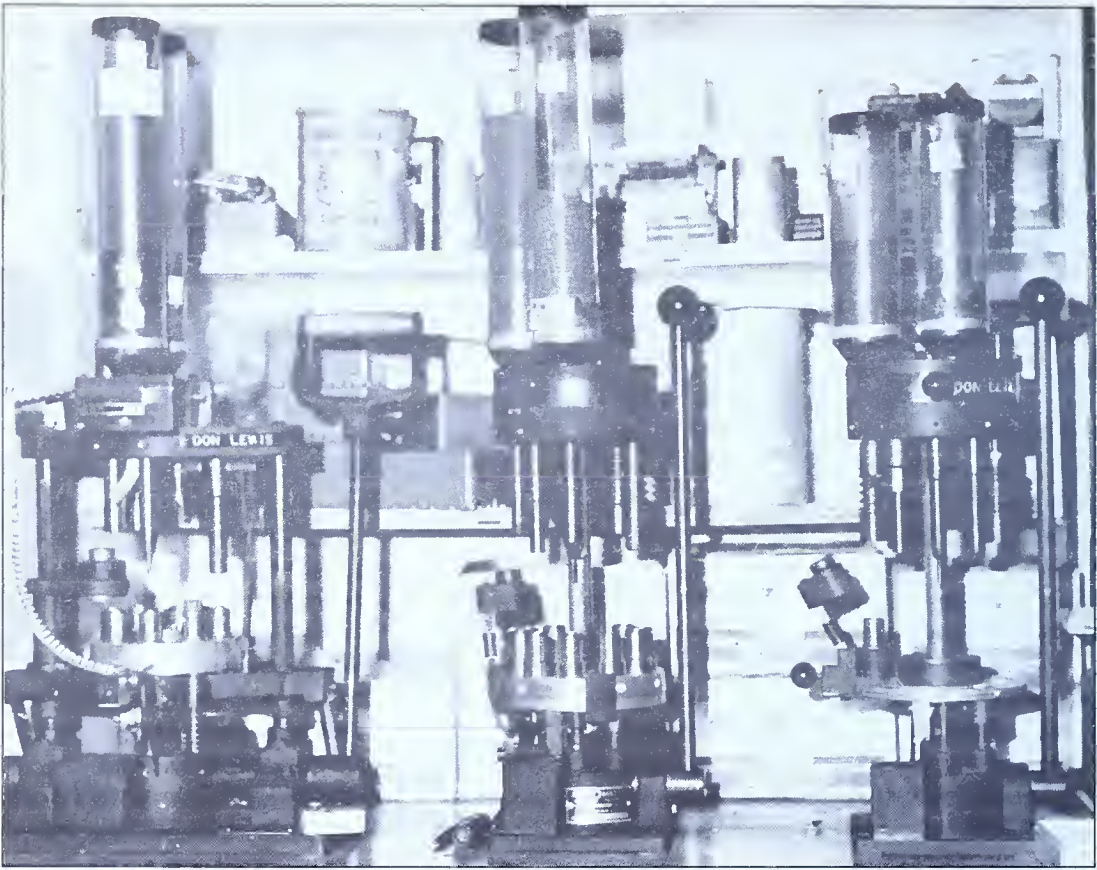
THE SOUNDS OF GUNFIRE echoing through our valley almost every evening finally pushed my curiosity to the breaking point. It wasn't just a shot or two; it came in fast five-shot strings. After two or three volleys, everything would be quiet for a half-hour, then the shooting would start all over. I finally convinced myself it was a shooter practicing rapid fire with a handgun.

I was doing some outside remodeling on my home in the fall of 1947, and there wasn't much daylight left after I got home from work. I was really working full speed to get a water system repaired. Finally, I could not resist the temptation to find out who had money enough to rapid fire hundreds of rounds each week. I dropped my pick

and shovel, got in the car, and headed in the general direction of the gunfire.

About a mile from my house, I spotted a fellow behind a small barn, rapidly working the lever of a rifle. He was shooting across a valley, but I had no idea what his target was. A minute later, I introduced myself and then watched with admiration as he poured five shots from a Winchester Model 94 into an empty two-gallon oil can. I real-





ize that's a large target, but he was shooting well over 100 yards and was literally keeping an empty case in the air the entire time.

He quickly fired two more strings of five, and then told me it was time to "bring them back to life again." Actually, I failed to grasp what he meant, but minutes later he was in his basement, operating the handle of a reloading press with just about as much vigor as he worked the lever on the 30-30.

Before long we were back behind the barn. He went through two fast strings and offered me that last five shots. My target, thank goodness, was a 50-gallon oil drum. I certainly didn't match his speed, but I did manage to put five holes in the end of the drum. When we examined the targets, I noticed that the hillside was dug up in long furrows from his constant shooting. It puzzled me why anyone would want to simply bang away at cans and barrels.

He explained that reloaded ammo was cheap, and he finally could afford to shoot as much as he wanted. At that

time a 30-30 factory round cost 16 cents. He claimed he could reload for just a mite over 4 cents per shell, and if he used homemade cast bullets and reduced loads, the cost dropped to 2 cents. That may be hard to believe, but primers were \$9.50 per thousand and ex-military powders such as 4895 were less than a dollar a pound in keg lots.

Most handloaders of the late 1940s and early '50s got involved in reloading simply to save money. We know that is certainly not the only valid reason for rolling your own loads, but during the tight economy of that period it wasn't uncommon for three or four friends to pool their money and buy reloading equipment, simply to cut down on shooting costs. Reloading manufacturers stressed the economical reasons, too. Here is a paragraph from the 1950 *Belding & Mull Hand Book*.

"The subject of economy is of prime interest to most shooters. Authorities state that, to become thoroughly familiar with an arm, you should fire hundreds of rounds yearly—many say at

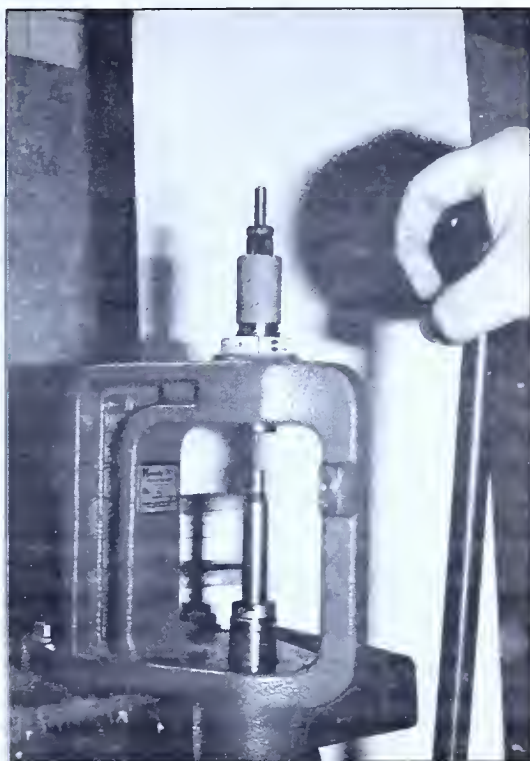
THE RELOADING PRESS is the cornerstone of the operation. At left are three Ponsness-Warren shotshell reloading presses. The first two are progressives and allow for rapid ammo production. The other is a single-stage. The Hornady 00-7, right, is a single-stage press for center-fire rifle and pistol rounds. While there are progressive presses for center-fire ammo, a single-stage will handle most needs.

least one thousand—and ammunition for the larger calibers costs from seven to 18 cents per round. It matters little what the numbers may be for it would vary with the individual. The pertinent fact is that few possess the means to do a fraction of the shooting they really would like to do. For those then who desire to enjoy more shooting with the most accurate ammunition at the minimum cost, we recommend reloading.”

I know the impact such statements had on me. I am not ashamed to admit that I became a handloader solely to save money. It took several years before I realized that saving money was not the prime criterion for home reloading.

Reloading manuals back then also made it clear that top quality ammunition could be assembled at home. Here’s another quote from the 1950 B & M Handbook. “The ease and accuracy with which an abundant supply of excellent ammunition can be assembled delight the beginner. As the knowledge of the practice increases, interest in the components and analysis of the results obtained point the way to study of the science of ballistics.” Generally speaking, that’s what happened to me.

When literally thousands of hunters, who rarely fired a box of shells a year, began cranking out their own fodder and burned ammo like grass in a wind fire, exaggerated claims spread through the hunting ranks. The paramount claim was that reloads were vastly superior to the factory product. After all the years of success with factory ammo, thousands of new reloading fans implicitly believed that, even though they had very little evidence to prove their point. And they convinced a lot of nonreloading hunters that factory ammo just wasn’t good enough.



It got so bad, many hunters felt embarrassed to admit they still used factory ammo. Handloaders were, and are, hard-pressed to gain any major ballistic advantage over factory ammunition. By 1964, the “use only reloads” hysteria waned. Field problems with reloaded ammunition forced a large segment of big game hunters to take a second look at the reloaded round. Sure they saved some money, but considering all the other expenses related to hunting, it was an insignificant amount. A field problem could cause a hunter to lose a day afield—or more. Here are two examples.

Word got out that the tip of a bullet had to touch the lands and grooves to make the rifle accurate. Many bench-rest shooters seat bullets out to touch the rifling, but hunters should use caution. A friend, who had to see a deep rifling ring around the tip of the bullet, decided to change from spitzer points to round nose loads. When he extracted the live round, however, the bullet stuck in the barrel. After a half-hour of trying to remove the bullet, he walked a mile back to his car and then spent most of the day looking for a gunsmith.



HERE Lewis measures cartridge overall length with a dial caliper. Cases stretch when fired, and they occasionally must be trimmed. When resizing, some handloaders resize only the cartridge neck, others insist on full length resizing.

about not knowing how to reload, I vowed that all big game shells would be full length resized in my shop. A wholly resized case would have fed into his chamber without any problems.

Even if it is almost impossible for the handloader to gain much of a ballistic advantage over a factory round, the home-reloaded cartridge can be tailored to exact specifications. When I began, a handloader could use bullet styles and weights not offered by any factory in a particular cartridge.

That has changed somewhat today as ammunition makers are offering a wider variety of bullet weights and designs that were available 25 years ago. For instance, *Hodgdon Powder Data Manual, 25th Edition*, lists powder charges for eight bullet weights for the 270 Winchester. *Speer No. 11 Reloading Manual* list powder charges for three different powders for six styles of .277-inch diameter bullets. Winchester and Remington factory ammo cover only four bullet weights—100 grains, 130 grains, 140 grains, and 150 grains.

This exemplifies how a handloader has a wider array of bullet weights and designs—some that aren't offered by ammunition manufacturers—to make use of. I am convinced that those additional weights offered by bullet makers can be used to good advantage by the serious reloader.

Probably handloading's most significant contribution comes in the form of the tailored load. The term is used quite generously by handloaders, but I have to say most of the time it's used for the wrong reason. The tailored load is not just the most accurate load from a rifle. In Helen's Ithaca LSA Model 65 bolt action 25-06, Federal's 117-grain boattail soft point offering and Remington's 120-grain Pointed Soft Point Core-Lokt ammo will each put three shots in 1 1/4-inch or less at 100 yards.

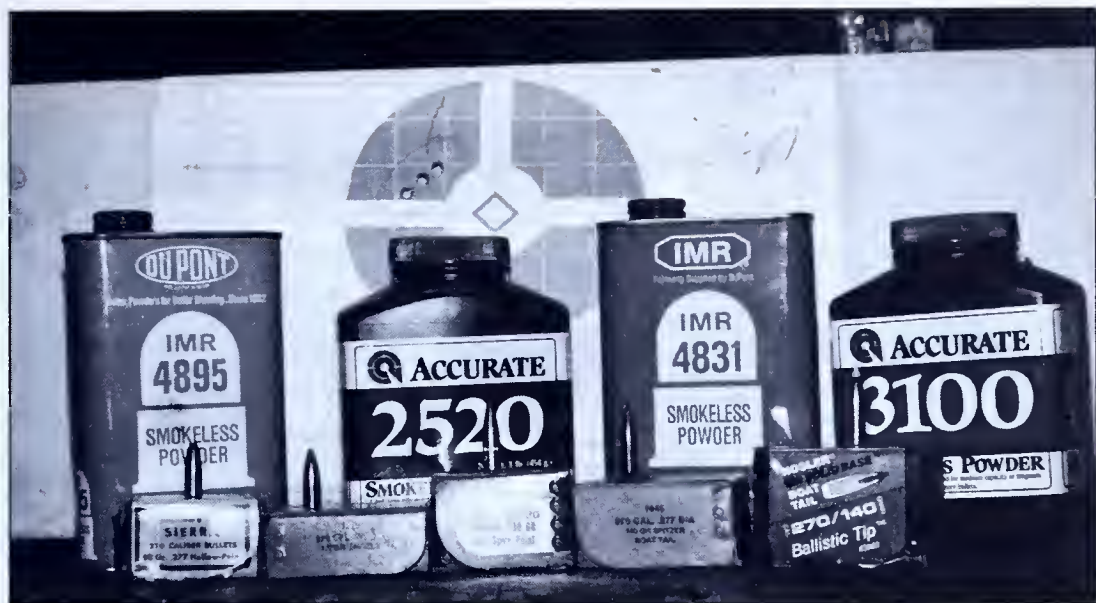
Let's say that with much tinkering

There is a much more serious consequence to this reloading practice as well: bullets seated out to contact the rifling may cause a dangerous rise in the pressure, possibly resulting in ruptured cases, ruined guns and injury to the shooter.

Full length resizing versus neck sizing has always been a hot argument. The opponents of full length resizing claim it shortens the life of a case. That's true to some extent, but neck sizing doesn't always guarantee the reloaded round will properly feed into the chamber.

Lost Argument

I lost an argument to a customer who bluntly said I was giving out bad information by insisting on full length resizing all big game cartridges. He made it abundantly clear that for his new Model 88 Winchester 284 he wanted his cases only neck sized. I followed his advice when making his ammo, much against my own judgment, and sure enough he got a live round stuck in the chamber while shooting at (according to him) a Boone and Crockett rack. After getting lambasted for 10 minutes



THE BIG ADVANTAGE in reloading lies in the ability to create tailored loads for particular firearms and hunting situations. The availability of a wide variety of bullet designs and weights and powder types enables the handloader to make a round best suited to his needs.

and shooting, I finally come up with a handload that would cut consistent $\frac{3}{8}$ -inch three-shot groups. What have I gained? From a big game hunting standpoint, I've gained little. From a psychological viewpoint, it's a personal victory.

Big game hunting rifles are not made for competitive-type accuracy. This particular LSA 65 is an exception. When any big game rifle prints three-shot groups under $1\frac{3}{4}$ -inches at 100 yards, it possesses all the accuracy needed for any type of big game shooting.

I am not arguing that the handloading hunter shouldn't be concerned about the accuracy of his load. I'm saying that selecting the right bullet design/weight/powder charge for the type of game being hunted is more important. It comes under my heading of a "tailored" cartridge. If it turns out to be a tack driver, that's icing on the cake.

On the surface, it may appear I have pointed out every fault of the reloaded round. All I have done is make an honest attempt to make big game hunters aware of problems inherent with using reloaded ammunition. I know thousands of hunters use reloaded rounds but have little or no experience with home-brewed ammo.

Handloading is not a hobby to be taken lightly. It demands in-depth study and an uncompromising attention to detail. Reloaders must always follow published data to the letter—no swapping or switching components. Handloaders should *never* exceed listed maximum loads.

My repair shop had its share of broken cases in chambers, stuck live rounds, and stuck empty cases. More than once, I had to re-seat spitzer-type bullets for a person so they would fit in his rifle's detachable magazine. In almost every case, the hunter had lost a following shot and valuable hunting time. It isn't worth taking such chances just to save a few dollars on a box of ammo.

I have a lot of experience in the reloading game, and I am still a dedicated handloader. I have always encouraged hunters and shooters to get involved in reloading. For those who fully understand the problems of the homemade round, handloads are perfect, but I must admit that most big game hunters are better off with factory ammunition. There's never a problem with feeding and extraction, and today's factory cartridge is better than ever and undeniably up to the task.

In the wind

j. scott rupp



More than 3600 species are waiting to be considered for endangered status by the U.S. Fish and Wildlife Service. The costs associated with listing a species run about \$60,000 each; to accommodate the animals and plants on the waiting list would cost about \$5 billion.

The American woodcock could benefit from a cooperative effort by the U.S. Fish and Wildlife Service, U.S. Forest Service and the Ruffed Grouse Society. An American Woodcock Management Plan has been drawn up; under the plan, USFWS will advise the Forest Service on management techniques to enhance woodcock habitat, and the Ruffed Grouse Society will help with habitat improvements. The groups will also inform private landowners on how they can make their properties more suitable for woodcock.

The world's first mandatory forest replanting law was passed by Sweden in 1903.

Connecticut deer hunters directly spent more than \$4 million during the '89 season, a state record. According to state wildlife officials, that spending translates to a \$7.9 million economic benefit to the state.

In their heyday—about 260 million years ago—the Appalachian Mountains were higher than the Rocky Mountains are today. The average height above sea level of the Appalachians in the central Atlantic region was 14,000 feet; the much younger Rockies, only 5 million years old, are about 14,000 feet at their highest.

Care of 357 otters stricken by the 1989 oil spill in Prince William Sound, AK, cost \$18.3 million—a figure that includes salaries, boats, helicopter time and construction of three emergency facilities, according to *National Geographic*. Roughly one-third of the captured animals died, and of the 225 survivors 197 were returned to the wild. The remainder, pups and disabled adults, were sent to aquariums. Scientists involved in the rescue said the cost was justified because they learned a great deal about how to handle future disasters.

Discarded film canisters contribute 660 million pieces of plastic to the world's trash heaps each year, according to *Audubon* magazine. Now Fuji Photo Film USA is replacing the plastic canisters with waterproof paper and is using recycled paper for outside packaging.

The Colorado Wildlife Commission wants to rid the state of European red deer, which could possibly jeopardize the state's native elk herd. The commission has approved a plan to compensate owners of the exotic deer; red deer bring high prices because their meat is lower in fat and higher in protein than beef or pork. Biologists are concerned that the red deer could spread disease or compete for habitat should they escape from ranches where they are raised.

Poison-laced corn designed to kill mice has come under suspicion for killing Michigan wildlife. Zinc phosphide-coated grain is sometimes spread by orchard owners and others because mice often kill shrubs and young trees by girdling them. In one case, six turkeys were found dead near a Christmas tree plantation; all died of zinc phosphide poisoning. A wildlife biologist believes the problem could be more widespread because most dead wildlife—especially small game and songbird species—are not made available for examination.

Answers: F H C A B G D E
Turkey—H, B Beaver—A, F
Quail—C, B Grouse—B
Squirrels—F Bear—E
Opossum—D Deer—G



Voluntary Waterfowl Stamp No. 9

Pennsylvania's 1991 waterfowl management stamp, featuring a pair of wigeons by Gerry Putt of Boiling Springs, is the ninth "duck" stamp offered by the Game Commission. Funds derived from stamp and print sales are used for wetland acquisition, habitat development, and waterfowl-related education programs. Stamps cost \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of 10, delivered. For a savings, the cost of five or more 10-stamp sheets, in any combination of years, is \$40 per sheet. The 1989 stamps will be available through December 1991, at which time all remaining supplies will be destroyed.

Stamps are available at the Game Commission Harrisburg headquarters, region offices, Pymatuning and Middle Creek Wildlife Management Areas, and at participating hunting license issuing agents and stamp dealers. A limited edition of signed and numbered fine art prints of this design are available from art dealers and galleries.



Make Check or Money Order
payable to:

**PENNSYLVANIA
GAME COMMISSION**
Dept. AR, 2001 Elmerton Ave.
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Shown here are seven publications available from the Game Commission. All prices include tax, handling and postage. When ordering ask for a complete list of the Game Commission's free and paid publications.

- The Shooter's Corner, *by Don Lewis* \$15
- Pennsylvania Big Game Records, 1965-1986 .. \$10
- Birds of Pennsylvania, *by James and Lillian Wakeley* \$10
- The Wingless Crow, *by Charles Fergus* \$10
- Mammals of Pennsylvania, *by J. Kenneth Douth et al* \$ 4
- Gone for the Day, *by Ned Smith* \$ 4
- Pennsylvania Wild Game Cookbook \$ 4

PENNSYLVANIA GAME NEWS

MAY 1991

ONE DOLLAR



Watson



At the Den, featuring a pair of red foxes by Lancaster County artist Laura Mark-Finberg, is the ninth limited edition fine art print available through the Game Commission's "Working Together for Wildlife" program. As with previous editions, *At the Den* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125, delivered; framed prints are an additional \$97.50. Limited numbers of the 1986, '87, '88, '89 and 1990 prints, featuring the kestrel, elk, egret, white-tailed deer and bald eagle, respectively, are still available. Invest in the future of Pennsylvania's wildlife—and yours, too. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

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FEATURES

Second Chance Gobbler	3
By Richard Tate	
Small Game and the Great Horned Owl (Part II)	7
By Jerry Hassinger	
Thunderstruck Gobbler	12
By Carl W. McCardell	
Weekend At Camp	15
By Larry Johns	
Goshawk Patrol	19
By Timothy Kimmel & Richard Yahner	
A Hen in Trouble	24
By Arnold H. Hayden	
Mink Attack	27
By John Crooks	
Duel in the Fog	29
By Monica Hoodak	
SPORT Essay Winners	31
By Jim Filkosky	

NEWS

Field Notes	34
Conservation News	39
In the Wind	64
By J. Scott Rupp	

COLUMNS

A Squirrel Hunter's Heaven (Another View)	43
By Linda Steiner	
WCO Diary	45
By Keith Snyder	
GAMEcooking Tips	47
By Carol Vance Wary	
Thornapples	50
By Chuck Fergus	
Fun Games	54
By Connie Mertz	
Parlor Practice (Archery)	55
By Keith C. Schuyler	
The MPL Squirrel Rifle (Guns)	59
By Don Lewis	

COVER PAINTING BY MIKE WATSON
(Cover Story on Page 6)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

NOTICE: Subscriptions received and processed by the last day of each month will begin with the second month following.

Mail Call

MAIL. We receive a lot of mail at GAME NEWS, which isn't surprising, considering that a half-million people see our magazine every month. And we're glad so many of you take time to write about the magazine, to ask questions, or just to let us know about some of your outdoor experiences. Your comments are the best form of feedback we get.

This month I'd like to share a few recent highlights from the mail. First are the letters we received from armed forces personnel serving in the Persian Gulf. Soon after American forces were deployed in the Middle East, we began sending GAME NEWS to Saudi Arabia through Operation Desert Shield. GAME NEWS, we're proud to report, was approved for distribution in the Muslim country, in part because we don't promote—through advertising or any other way—the use of tobacco and alcohol.

It wasn't long afterwards that we began to receive letters from service personnel stationed over there. Spec. Scott Ciprich, for example, with the 442nd FSC out of Bellefonte, even sent us a Pennsylvania Big Game Roster filled out Saudi Arabia style. Scott and the other servicemen in his motor pool section were feeling low because they were missing the Pennsylvania deer season. To help ease the pain, they filled out a roster, complete with their names, their "Sand Avenue" addresses, license numbers and a listing of their firearms—all of which were M16A1s, except for their grenade launcher. Also listed were the camels they had, in jest, shot. None had any points, Scott reported, but each had one hump.

Shipments of GAME NEWS to the Mid East stopped once the war broke out because the magazine was considered nonessential material. We're pleased that GAME NEWS was appreciated by so many servicemen, and we enjoyed hearing from all those who took the time to write us.

From much closer to home, and a complete surprise, was a letter received a few weeks ago. Mrs. Wolaver, from the Harrisburg area, dropped us a line to let us know about her mother-in-law, Mrs. Sarah Wolaver. Sarah, born in 1906, we were pleased to learn, has been a subscriber since GAME NEWS started more than 60 years ago. It's long been known that GAME NEWS subscribers are particularly loyal, but to learn of one who's been with us since the beginning was truly enlightening. If there are any others out there with such a track record, we definitely would like to hear from you, too.

Finally, I'm not sure how many hundreds of you wrote about turkey hunting safety, in response to the March editorial. The Hunter-Trapper Education Division staff has been busy reading your letters and tabulating your responses. And although the commissioners tabled this issue at their April meeting, your input will be useful in the months to come.

Feedback from readers is invaluable. And while it's impossible to please everybody, accept every suggestion and address every complaint, we nonetheless appreciate your comments. Thanks for writing. —*Bob Mitchell*



DAD AND I had located some gobblers during our preseason scouting. I began walking toward a knob where a couple birds had been gobbling only the day before. I had gone less than half a mile when a tom sounded off. He was just above a small rise between us. I quickly set up at the base of the rise.

Second Chance Gobbler

By Richard Tate

I WAS TRULY DISGUSTED with myself. In 10 years of chasing spring gobblers, I've done a lot of stupid things that worked to the advantage of the toms. But I figured what I'd just done was the biggest error of my hunting career.

I was getting to the woods on last year's opening day of spring gobbler season. When I had risen at 4:30, it was raining hard. Since my dad and I both abhor hunting in heavy rains, we decided to go back to bed. "We have a month to hunt," Dad told me over the phone, "and the woods won't be crowded after opening day."

I never really fell back to sleep, and at six o'clock I realized that the rain had ended: There was no more pattering on

the roof outside my bedroom window. I quickly jumped into my hunting clothes, grabbed my shotgun, and zoomed out to a local ridge where Dad and I had located a couple gobblers during one of our many preseason scouting trips.

I began walking toward a knob where a couple birds had been gobbling only the day before. I had gone less than half a mile when a tom sounded off. He was just above a small rise between us.

I quickly put on my face mask and a pair of brown gloves. I decided to sit at the base of a large maple tree about 30 yards away. I hustled up an old tram road to the tree at the base of the rise.

It was a dumb move. It brought me out from behind the rise, right where



This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

the gobbler could see me. When I thought about it later, I figured the gobbling tom had been less than 60 or 70 yards away. At any rate, when I reached the tree, all I saw were the flags of three deer racing through the open woods.

The tom had vanished. I stuck around and called for awhile, but I knew what I had done: I had probably blown the only chance I'd get to tag a gobbler. Why hadn't I sat down below the rise and clucked a couple of times? The gobbler probably would have sneaked over to the edge for a peek, and I'd have been in business. He'd have been less than 30 yards away.

I think my family and friends got tired of my grumbling over the weekend, as I replayed the event to anyone who would listen. I'm sure they were happy to see Monday arrive so they could get away from me. I was glad that I could resume the hunt. I normally have to work during turkey season, but this spring I could chase gobblers every day. I was hoping I'd be lucky enough to get a second chance.

Monday morning found me back on

the ridge. Dad had decided to try another area, leaving me to work on the gobbler that had gotten away from me on Saturday. It wasn't long before the lusty tom sounded off from his roost, only a couple hundred yards from where I had spooked him before. I didn't repeat the error I'd made on opening day. Instead, I moved to a large poplar tree about 100 yards from where he was, donned my face mask and gloves, and sat down to call.

After I made a few soft clucks, my adversary answered. I followed with a soft string of yelps. The bird gobbled again. I decided to play it coy, answering only every third or fourth gobble with a couple clucks.

My strategy didn't work. When the gobbler flew down from his roost tree, he walked straight away from me. His gobbles got progressively farther away, and although I tried to loop around him and set up again, he eventually quit gobbling. Again, I had to acknowledge defeat.

The next day I elected to try for a different bird. Dad and I both figured the one on the ridge was going to be tough to tag. "Don't forget how he acted before the season," Dad reminded me. "Every morning he heard hens calling, he just shut up. He knew they were going to look him up. He might never come your way."

Tuesday turned out to be a bust. I heard a gobbler at dawn, but I couldn't get near him. There was a sea of laurel between us, and being in relatively unfamiliar territory I couldn't find a way to get around it before the bird shut up.

I left the area about seven o'clock, drove a couple miles along the mountain, and spent the rest of the morning in a familiar section of woods. Although I didn't hear a gobble, I did hear three shots nearby, and at 9:30 I heard excited yelping in reply to my calling. At first I thought it was a hen looking for some company, and I hoped she would lead a gobbler into my ambush.

But the calling didn't sound quite right. I soon realized it was another hunter answering my calls. Hurriedly

donning my blaze orange vest, I headed for an old logging road, and got out of there. With all the attention being given to turkey hunting accidents in recent years, I'm not about to take any unnecessary chances.

After trout fishing that afternoon I dropped in on Dad. We decided we would try a different area the next morning. "Maybe we can team up on a gobbler," Dad smiled. "They have certainly gotten wise in a hurry this spring."

The next morning we drove to a local ridge and walked about a half-mile into the woods before sitting down to listen. "We don't want to wander around too much," Dad advised as we sat down on a log at about 5:30. "We might spook a bird before we even have a chance to set up on him."

That sounded good to me. After Saturday's affair, I needed all the advice I could get.

As the sky lightened and the songbirds began their morning chorus, I impatiently waited to hear a gobbler. But when there were no gobbles in response to a cacophony of crows by six o'clock, Dad suggested we split up and try to cover more area.

I balked at first, believing we could hear for several hundred yards in several directions. However, the lack of any gobbling in our vicinity made me rethink the plan, and shortly afterward I agreed that a move was in order. "I'll meet you back here at eight o'clock," I told Dad, and I started easing my way toward a hemlock hollow a half-mile away.

I hadn't gone far when I was startled by the *gobble-obble-obble* of a tom turkey. He was no more than 200 yards away—directly uphill from me on the ridge. I could hardly believe it. Why hadn't Dad and I heard the bird from where we'd been? There were no wrinkles in the ridge to direct the sound away from us.

I was startled at the tom's proximity, and I knew I'd have to hurry to set up—it was getting light quickly. I hastily halved the distance between myself and



THE SKY LIGHTENED and the songbirds began their chorus. There were no gobbles in response to a cacophony of crows, so Dad suggested we split up and try to cover more area.

the gobbler over the next minute or two. He continued to gobble. If anything, his gobbling was increasing as the woods lightened.

Although I didn't like having to position myself downhill from the bird, I felt it was my only real option because the tom would soon be leaving his roost. When I found the large stump of a deadfall that looked like a good setup, I donned my face mask and gloves and took off the hunting vest in which I tote all kinds of gear. Before sitting down on a rubber cushion, I yelped a couple times on my favorite diaphragm caller and flapped my arms against my hunting coat to try to sound like a turkey flying down. It was 6:24 when I sat down against the stump and propped my shotgun on my knees.

The gobbler continued to holler every 30 or 40 seconds, and I replied to every third or fourth gobble. Sometimes I gave him four or five yelps with the mouth caller, other times I sent him two or three clucks from a little chatter-box. I even scratched the leaves occasionally. I wanted him to believe a couple hens were beckoning.

No more than 10 minutes later I saw the gobbler fly from his roost. He sailed down the ridge about 20 yards to my

right, banked farther to my right, and hit the ground out of sight over a small rise about 50 yards away. I hastily swiveled to reposition myself for a shot. If the turkey walked uphill, I would be in perfect position for a shot. If he chose to come in over the rise and slightly to my right, it would take almost no movement to get the gun on him. If he walked away. . . .

As it turned out, the gobbler walked silently over the rise a few minutes later. His fanned tail told me he was not an old longbeard: the center tail feathers were longer than the others. Too bad. I was really hoping to tag a longbeard.

The tom folded his tail and began to ease toward me. When he disappeared behind some large trees about 40 yards away, I repositioned the gun slightly. I pushed the safety to the "fire" position, and when he emerged, I had the bead on his head/neck area. As he got progressively closer, I could see his small brush beard jutting out. He stopped a couple of times to peck at the ground but finally, at what turned out to be 28 steps away, he stopped, stood erect, and searched the woods for the hen he couldn't see. He was a fine, dark tom, looking almost black as he posed. It was certainly the perfect position for a shot.

I debated about pulling the trigger. I had the whole season to try to find a longbeard. I knew that in the hard-hunted, local turkey territory, one good opportunity to tag a tom is about all a hunter can hope for. Here, I was being accorded a second chance to tag a spring gobbler. If I didn't take this shot,

I might have to endure another unsuccessful season. I made my decision. My shotgun boomed.

I sprang up and quickly headed for the flopping gobbler, tripping over a log and twisting my ankle a little before arriving at the downed turkey. The load of copper-plated No. 4s had done its job quickly and efficiently.

As I tagged the hefty young gobbler, I admired the subtle beauty of his shining feathers reflecting a variety of bronzes and dark browns in the early morning light. He was a fine young game bird.

After gathering my paraphernalia, I limped my way back to the log where Dad and I had been sitting earlier. Dad was there waiting for me.

"One shot," he said with a smile. "I figured you connected. Congratulations."

"Could you hear him gobbling?" I asked.

"No, I didn't hear a thing. Did he gobble much?"

"Yes," I replied, "till he left his tree. Then he shut up."

"Was he alone?"

"Yes. He was the only turkey I saw," I answered.

"Just before you shot, I saw a turkey sailing down the ridge," Dad told me. "I thought it was a hen. Your gobbler must have thought you were that hen."

"Probably," I agreed, and I began to recount the hunt for Dad. As we left the woods, I reflected how fortunate I was to have gotten a second chance to lure in a spring gobbler. It doesn't happen often, at least for me.

Cover Painting by Mike Watson

For a good many commonwealth sportsmen, spring gobbler season is one of the highlights of the hunting year. While pursuing this wary bird, hunters are reminded to heed turkey hunting safety tips, and to remember that the only legal turkey is one with a visible beard. When in doubt, don't shoot. Remember, you're sharing the spring woods with other hunters. Make yourself visible to your fellow sportsmen. Wear fluorescent orange while moving through the woods, display it near your calling position and wrap it around a bird when transporting it from the woods. The Commission offers fluorescent orange safety alert bands for this purpose. They are \$3 each, delivered. Order from the Commission's Harrisburg headquarters.

The owl's impact on farm game is minimal and predator control, whether mammalian or avian, has not proven effective or efficient.

Small Game

and the

Great Horned Owl

Part II

By Jerry Hassinger

PGC Biologist



ARE HUNTERS RIGHT to curse predators such as the great horned owl, to blame them for declines in our pheasant and rabbit populations? The first installment of this two-part article looked at the major role habitat loss and degradation has played in the lives of farm game species. This concluding section will focus on the great horned owl's impact on small game.

Predator/prey relationships are complex. Our typical reaction to predation is not unlike the reaction of an anti-hunter to hunting—emotional and simplistic.

Is the great horned owl a worthless bird and a threat to our sport? The American Ornithologists' Union would not agree, believing, instead, that birds of prey constitute a benefit to human

interests rather than a menace. Sixty years ago the group went on record opposing "... all bounties and organized campaigns of destruction directed against any member of this group [raptors]."

Increasing Owl Population?

The great horned owl is and has been abundant throughout most of Pennsylvania. But has it increased since it received full legal protection in 1972? In 1990, based on 56 survey routes in southcentral Pennsylvania, Penn State researchers reported densities of one breeding pair per 2.5 to 3.5 square miles. Lowest densities were in areas with extensive, unbroken forests. The owl typically roosts or nests in trees and searches nearby fields for prey.

No reliable, long-term data are available to determine whether great horned owl populations have increased at the state or county levels. Bounty records for the years 1945 to 1965 suggest the state's population was fairly stable. Nationwide, U.S. Fish & Wildlife Service (USFWS) Breeding Bird Trend data indicate the great horned owl population in the eastern region of the country was stable from 1965 to 1979.

Bird Counts

Christmas bird counts—sometimes criticized as inconsistent—indicate great horned owl and red-tailed hawk sightings in southeastern Pennsylvania experienced a gradual increase from 1974 through 1981. There is no evidence that statewide populations have risen since 1981.

If those increased sightings reflect higher populations, it's probably not because great horned owls were given legal protection. A more likely explanation is that raptor populations were responding to the discontinuation of

DDT and, hence, a less contaminated prey base.

Still, increased predator populations don't necessarily equate to increased predation. It is possible, however, for predators to increase their take as farm game food and cover conditions deteriorate.

The great horned owl chooses from a variety of prey. Food choices are dictated by availability. Availability is governed by abundance (rodents and rabbits in Safety Zones); ease of capture (crippled, diseased and pen-raised animals); habitat quality (fragmented habitat where prey is exposed traveling between food and cover); and prey size.

The great horned owl prefers rat-size animals, but frequently kills smaller and larger prey. A recent Pennsylvania study of 2606 prey items identified in regurgitated great horned owl pellets revealed that the pheasant and grouse each comprised about 3 percent of prey items, on average. The study's authors concluded that on a statewide basis, considering both numbers and size of

PREDATORS CAN INCREASE their take of farm game as food and cover conditions deteriorate. Good habitat is the key to survival for small game species—even small predator populations will have a large impact on pheasants and rabbits where inadequate cover leaves animals exposed.



prey, the Norway rat (24 percent) and wild rabbit (15 percent) appear to be the most important prey. Despite that preference, rabbits persist and often thrive in pockets of good quality habitat.

Not including rats, about 12 percent of the prey items were remains of long-tailed weasels, opossums, skunks and crows — predators themselves notorious for consuming pheasant eggs. The great horned owl is one of the few predators that kills skunks, and also regularly kills hawks and other owls. Add to the list the occasional feral cat, and it would seem that in some circumstances the owl is actually a help to the wild pheasant population because it keeps other predators in check.

Great horned owls perform another "service." Mammals in the final stages of rabies are easy targets for birds of prey. And because birds are not known to get or transmit rabies, they are dead ends for the virus.

As mentioned previously, predator/prey relationships are complex. The prey base can be thought of as the variety and amount of suitable prey avail-

able per unit area to a predator. Predator populations fluctuate from year to year and from locality to locality, primarily in response to a changing prey base.

The important point is that prey base changes normally precede corresponding increases or decreases of predator populations. Owl populations can't increase without the food necessary to support a higher survival rate for nestlings, so any alleged increase in great horned owl numbers would have to come from an increase in the prey base.

No Relief

By now, many readers will have concluded that if the prolonged pheasant decline is due to degrading habitat, killing great horned owls won't offer much relief.

That certainly is correct, especially when the many causes of pheasant mortality are considered. These include disease, starvation, contact with pesticides, severe weather, roadkills and mower kills, in addition to predation. There are six common predators of pheasant eggs: skunk, opossum, rac-

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THERE ARE, at minimum, 18 different agents that can remove a pheasant from the population; there are six common pheasant egg eaters and six common ringneck predators. Add to that list starvation, roadkills, pesticides and the like.

killing adult birds. In Minnesota, nest destruction was halved after officials trapped as many as 25 predators per square mile from a nine-square-mile study area. But within a year after trapping ended, predator populations rebounded to previous levels.

South Dakota researchers discovered that the only effective way to achieve widespread predator control was to poison virtually every mammalian predator in a 100-square-mile area.

Both studies showed that an extensive, ongoing predator management effort is too expensive; cost estimates for Minnesota were almost \$10 million per year (1985 dollars). Minnesotans concluded that if an equal amount of money were available for an annual program of habitat acquisition and enhancement, "... our pheasant problems would be over for good."

Minnesota and South Dakota experimented with extreme measures that would not be acceptable to the public today. The authors of a USFWS study concluded that the country's greatest densities of great horned owls occurred in Kansas and South Dakota. Yet South Dakota researchers discovered that the only effective way to achieve widespread predator control was to poison *mammalian* predators.

Minnesota researchers reported the exorbitant expenses associated with effective predator control. Trappers, however, provide cost-free removal of mammalian predators. Have ringnecks in Pennsylvania benefited from trapping activity?

When fur prices are low, participation in trapping decreases, resulting in fewer furbearing predators being taken. When prices are high, the opposite is true. This is reflected in the records of fur dealers and, since 1979, the Commission's Game Take Survey. We can assume that recordkeeping by fur dealers

coon, long-tailed weasel, crow and black snake. And there are six common predators of pheasants: red and gray fox, feral cat, red-tailed hawk, great horned owl, and man. At minimum, 18 different agents can remove a pheasant from the population.

Already Harvested

It is difficult to conceive that eliminating one nighttime predator will result in extra pheasants in a hunter's game bag. Consider, too, that eight of the 12 named predators are already trapped or hunted in accordance with law. If the regulated harvests of eight predator species hasn't prevented a pheasant decline, it would make little sense to claim that adding one more to the list will make a difference.

To reinforce that point, consider the experiences of Minnesota and South Dakota, and the record of predator control in our own state.

There was no doubt that in the Midwestern pheasant states foxes, skunks, raccoons, owls and other predators were destroying pheasant nests and

is consistent from year to year, and the number of pelts purchased can be used as an index of predator removal.

Paradoxically, when pheasant populations were highest (1966-75), the fewest predators (421,503 pelts) were being removed from the population. In the years 1976-85, when pheasants were experiencing a decline of about 50 percent, fur prices increased to their highest levels and almost three times as many pelts (1,175,404) were placed on the market. Yet ringnecks continued to decline.

In recent years, fur prices and the estimated fur harvest has each dropped considerably. From a high of more than 800,000 furbearing predators in 1981, the estimated fur harvest had dropped to a little more than 100,000 by 1988. It is doubtful that enough great horned owls could be taken from the population to make up for nearly half a million furbearing predators that weren't harvested. The 1945-65 bounty records for great horned owls point out the impossibility of this: The annual take for those 20 years averaged 1356 owls and never reached 2000 in any one year.

The primary causes of the decline of farm game species are market-driven changes in agricultural practices. Those changes have resulted in a deterioration

of the amount and quality of pheasant nesting habitat to the point where reproduction can't keep pace with normal mortality.

To the extent that pheasant habitat is fragmented or otherwise degraded, pheasants are disadvantaged and their predators are advantaged. Thus "normal" pheasant mortality can increase without, necessarily, a commensurate rise in predator populations. Predators (fellow hunters, if you will) have always killed pheasants. But there is no evidence in the history of the state's wildlife research that suggests predators were responsible for the sustained decline of wild ringnecks.

Killing great horned owls will not result in increased harvests of farm game. Inordinate attention to predator control is a costly diversion from the challenge of working with farmers and other landowners to improve habitat.

In conclusion, suggesting that great horned owls are responsible for the decline in ring-necked pheasants is overly simplistic. Pheasants and many other species of wildlife are not found in numbers like they were just a decade or two ago. And while the reasons are many and complex, the adverse effects of habitat loss and intensive land use practices are undeniable.

JUDY WINK, chief naturalist at Carbon County's environmental education center, was awarded a "Working Together for Wildlife" print for her exemplary wildlife rehabilitation efforts. WCO Richard E. Karper made the presentation. Also on hand was Mauch Chunk Lake Park manager Dennis DeMara.





WHEN TURKEY SEASON arrives, Bob Ford thinks of little else. For him, the next best thing to hunting turkeys is telling about his exploits or listening to others' stories. All hunters have their favorite tales, and this is one of his.

Thunderstruck Gobbler

By Carl W. McCardell

BOB FORD is a turkey hunter. While the Coatesville resident is well-known for his World War I and II memorabilia, and for the greenhouse from which he earns his living, when turkey season arrives he thinks of little else.

A longtime member of West Caln Sportsman's Club, Bob eagerly looks forward to the meetings. It is there that he can share with other members his spring and fall adventures. For him, the next best thing to an actual hunt is talking about his exploits or listening to someone else's.

All hunters have favorite stories they're particularly fond of. Bob is no exception. When asked to describe his most exciting turkey hunt, he quickly responds: "It was in the spring of 1988. Boy, was it a miserable day. . . ."

Bob joined his hunting camp in 1957.

Located not far from Galeton in Potter County, the property is next to state forest ground and offers vast hunting opportunities.

Arriving at camp the afternoon before the 1988 spring opener, Bob—along with his father, Paul, and friends Davey Gordon and Ed Bell, Jr.—decided to scout the area.

One way to be a good turkey hunter is to know the area really well," Bob says. "I've been hunting this particular area for over 30 years. Scouting before the season is also important."

The four hunters didn't know it then, but three surprises were in store. The first one came during the scouting trip: a road gate, normally open, was locked. That meant Bob would have to walk at least a mile and a half to get to his favorite spot.

That didn't matter much to Bob,

though. The previous season had brought interruptions from other hunters, and Bob had already entertained thoughts of going deeper into the forest to get away from the pressure.

Next, Paul Ford lost his license while scouting. When he discovered his plight, he decided to go trout fishing and look for the license later.

When 4 a.m. rolled around on opening day, Bob was the first to get dressed and the first to look outside. What he saw was the third surprise.

The temperature was a bone-chilling 35 degrees. The air hung heavy with moisture. Not a very good day to hunt spring turkeys.

Bob walked back inside to the warmth and reached for his dad's heavy camouflage coat. Davey and Ed had plans to hunt a ridge close to the cabin. They had heard a gobbler there two weeks earlier while trout fishing. With the prospect of rain in the forecast, the two younger hunters wanted to be close to shelter, just in case.

Bob snugged his collar around his neck as a slight breeze sent a chill through his body. It was still pitch black when he headed for the forest road.

Remembering the interruption of two hunters the year before, Bob decided to hike back to a point some three miles from the cabin.

Because this hunter's frame is "four feet, 27 inches" as he likes to tell everyone, his long strides helped him cover ground rapidly. He made it to his spot with 20 minutes to spare.

At exactly 5:30 an owl hooted. A loud gobble followed the eerie sound, arousing Bob's sleepy body. Listening carefully, he heard it again. Judging the sound to be two mountains away, he moved off to close the distance before making his first call.

"I consider myself to be a great woodsman and turkey hunter, but I'm not a good caller at all," Bob says. "I have an old Lynch box call I think is fantastic, though. All I do is give a couple of yelps. When a gobbler starts to come my way I shut up."

While getting as close as he dared,

TURKEY HUNTERS: Don't forget to report your birds. Harvest report cards are due within 10 days of killing a gobbler. If you've already used your report cards, mail to the Harrisburg headquarters a post card with your name and address, license back tag number (including letter) and the date, county and zone of kill.

Bob found some fresh scratchings and set up nearby. His hen noises sounded perfect, but the old bird didn't respond. It was now past 6:30.

At that point, many hunters might have given up. "The more you turkey hunt, the more you think; the more you think, the more mistakes you think you might have made," Bob says.

Thoughts like, Did I move in too close? and Did I spook him? entered Bob's mind.

He decided to move to the other side of the ridge. After a half-hour's calling proved fruitless, Bob thought he'd blown it. Taking a chance, he eased down the steep mountain about 300 yards and found a bunch of treetops with an ideal opening for his shotgun. The air felt raw against his face as he fumbled for his call.

A rumbling noise that sounded like a jet echoed through the heavily overcast valley. A downpour moved in from the distance and swept over Bob's position. A loud boom rumbled over one mountain, then another. *Gobble, gobble, gobble.*

Unusually large raindrops pelted him, and Bob realized his rain gear wasn't in the coat he'd grabbed at the last minute. But with the turkey's sudden eruption, it didn't matter.

Another shot of lightning flashed across the sky. *Gobble, gobble, gobble.*

Bob was sure no one would interfere with this hunt. Who else would be out in this mess? he thought. Clucking twice on the box call sent the turkey into a frenzy. The bird double and triple gobbled frantically. Bob didn't need to call anymore.



HE COULD SEE the gobbler's beard clearly, and when the bird stepped behind a tree 50 yards away, Bob flipped off the safety. He was ready to go.

Suddenly he caught a distant movement heading for the ravine. The gobbler was about 80 yards out and coming fast. Bob could hardly contain himself. He'd had many birds come into him before, but nothing like this.

He could see the beard clearly, and when the bird stepped behind a tree 50 yards away, Bob flipped off the safety. His three-inch load of copper-plated No. 4s was ready to go.

Several Steps Away

Boooooom. *Gobble, gobble, gobble.* The turkey was now only several steps away from the rim of the ravine. Another peal of thunder echoed across the valley as the turkey stretched his neck to gobble again.

The charge from Bob's full-choke barrel sent his quarry spinning. The turkey was down for keeps. Bob jumped from his cramped position and, half stiff from sitting, hobbled over to his prize.

It was a beautiful bird, weighing more than 23 pounds. It had an eight-inch beard and exceptionally long spurs. Bob filled out his turkey tag as best he could. It was soggy even before he attached it to the bird's leg. Hoisting the heavy bird onto his shoulder, Bob steeled himself for the very long walk back to his comrades.

As he spent a few brief moments reliving the morning's events, the rain began to taper. As quickly and fiercely as it had come, the storm moved out of the area.

What if the storm had not come? Would this turkey have been his? One last rumble in the distance appeared to answer Bob Ford's questions. This, indeed, had been a special hunt. Bob had just taken his first "thunderstruck turkey."

The sky grew blacker and the rain became more intense. Even though the deck seemed stacked against him, Bob's hunt was going better than he could've imagined.

In all the excitement, however, Bob hadn't noticed a small ravine that separated him from the oncoming turkey. "If the bird goes into it," he thought, "he might not come out again."

Bob judged the distance to the far lip of the ravine to be 40 yards from his position. He would have to take the bird when it reached that spot.

Completely Soaked

Booom. Booom. *Gobble, gobble, gobble. Gobble, gobble, gobble.* Bob carefully put down his call. The 12-gauge double that had been resting on his knees was lifted into final position. His legs were drenched, and his father's heavy coat was completely soaked.

The only thing on Bob's mind was the turkey. The frequent lightning didn't bother him; it made little difference because, after all, he was three miles from the nearest shelter.



I WAS EIGHT years old, and my brother was six. It was Harry's first weekend adventure with our grandparents; I was a seasoned veteran of two summers. The cabin was built in 1949 by our maternal grandfather; it was made primarily of salvaged lumber obtained from pallets and packing crates.

Weekend At Camp

By Larry Johns

WE WERE AT OUR CAMP last weekend. It is located alongside Route 66 north of Marienville in Forest County at a place called Pigeon. Pigeon is on most maps, but there's no real town there, just a few houses, hunting camps and a historical marker noting that Seneca Indians used to gather passenger pigeon eggs there.

Our camp was built in 1949 by my maternal grandfather—"Grandpap," to his grandchildren. His wife, their five daughters and sons-in-law added labor to the project. It was built primarily of salvaged lumber obtained from pallets and packing crates. Camp Maple Leaf, as Grandma christened it, was not fancy when it was built and remains relatively unchanged today.

Most people wouldn't place much value on our camp, but to me it's more precious than gold. The memories of my grandparents and my childhood live there, and I go there to rekindle them as often as I can.

I was five years old when the camp was built, my brother Harry was three. In the ensuing 10 years we spent many of our summer weekends there with our grandparents. Grandpap died seven years ago, and the only tangible thing he left his family was Camp Maple Leaf.

The camp was willed to my cousin Patty and her husband. They were his closest relatives the last few years of his life, and he knew they would allow the rest of us to use the camp. If it was

Grandpap's intention to keep good memories of him alive by doing this, he succeeded.

As I sat by the fire at camp last weekend, memories of a summer weekend in July 1952 came back to me.

The anticipation in the air was so thick we could hardly breathe. Harry and I were with Grandma on the front porch, waiting for Grandpap to get home from work. Our clothes, food, fishing tackle, and bait were stacked on the porch. We couldn't wait.

Proper Etiquette

I was eight years old then, and my brother was six. It was Harry's first weekend adventure with our grandparents; I was a seasoned veteran of two summers. I had instructed Harry in proper camp and travel etiquette.

"Sit in your assigned seat and don't fidget. Don't ask to go to the bathroom, or if we're almost there yet. Eat all the food you're given, including the crispy fried horned chubs with the heads, fins and tails on. Don't walk in the weeds where the giant rattlesnakes are sure to bite you.

"Don't catch any fish till Grandpap does, or we'll have to move to a better spot. Don't get into the poison ivy, and above all else, don't whine."

Whining was a major offense and automatically invoked the dreaded threat from Grandpap, "Quit that whining, or your Grandpap won't take you to camp no more!" Grandpap always referred to himself in the third person when addressing his grandchildren.

Dress Code

In addition to proper behavior, camp dress code had to be followed. Harry and I were decked out in our plaid flannel shirts—red for me, blue for him. The flannel was uncomfortable in the July heat, but was necessary protection from pneumonia caused by exposure to "mountain air." Ball caps for sunstroke, denim pants for "jaggers," and old sneakers for the protection of our "good shoes" rounded out our uniforms.

Grandma wore her normal camp

clothes, consisting of an old faded house dress with the sleeves removed, and two safety pins replacing the three missing buttons on the front. High white cotton socks and black engineer boots with the little silver rings on the sides accented her ensemble.

Grandpap would come home in his green work clothes and orange leather boots. After he replaced his work shirt with a green plaid, we were ready to grace the cover of an outdoor catalog.

During the endless five minutes we waited for Grandpap, Grandma nervously checked and rechecked our supplies. She was preparing for their weekly scavenger hunt game. The rules were simple: Grandma would forget some insignificant item, and Grandpap would try to discover what it was.

When he discovered what was missing, he'd throw an absolute fit. The longer Grandma could keep the forgotten item secret, the more powerful his reaction.

As she scurried about, I saw her suddenly relax, and with a satisfied smile on her face, she removed a small container of safety pins from her purse. Oh no, I thought, she's forgetting the "extra" safety pins. I was relieved when I saw her slip a couple of "emergencies" into her pocket.

Grandpap arrived home on time that afternoon, changed shirts and loaded the car, being careful to evenly distribute the weight of the passengers and cargo. This precaution, we were told, prevented uneven tire wear. Because of this, we were not to move from our assigned spots on the rear seat.

As we drove off, Grandpap asked, "Well what did you forget this time?"

Grandma answered meekly, "I don't know what it would be, I checked everything twice." "Humph," Grandpap replied. Grandma, in a rare moment of bravery, countered with "Humph, yourself. Why don't you do the packing from now on."

"Humph," said Grandpap.

Fifteen minutes into the trip, Harry started to fidget. I promptly punched him in the ribs, thinking it might calm

I KNEW our grandparents' threat to stop the car and switch us for fighting was an idle one—Grandpa wouldn't stop the car if it was on fire and we were engulfed in flames. But Harry didn't know that. Being a rookie, he was shocked into a state of sulking submission.

him. Instead, he shifted into his whining mode with, "Grandmaaaa, make him quit hitting meeeee."

Grandpap said, "What the #@*% % is going on back there?"

Grandma threatened, "Stop that or your Grandpap will stop the car and Grandma will cut a switch."

I knew that was an idle threat because Grandma never switched us, and Grandpap wouldn't stop the car if it were on fire and we were engulfed in flames. Harry, being a rookie, wasn't privileged to this information and was shocked into a state of sulking submission. I wrapped myself in the peace and comfort of past experience and fell asleep for the remainder of the trip.

I awoke as we pulled into the camp driveway. While Grandpap practiced the rites of unlocking the camp, woodshed and outhouse, we carried our supplies to the porch. The camp and woodshed had two padlocks, the outhouse only one. The only logical explanation, at least to an eight-year-old, was that toilet paper thieves weren't as persistent as other types of criminals.

That evening was uneventful, except when Harry refused to eat the onions mixed with our fried potatoes. A major confrontation was avoided when Grandma discovered that her plate suffered a fried onion deficiency, and Harry was allowed to give her his undesired sortings. Grandpap uttered a grumble and the incident ended.

We went to bed at dark, and Harry and I were treated to one of the highlights of camp entertainment. Grandma and Grandpap were world-class snorers. They snored so loudly that they not only woke each other, but woke themselves as well. It would go like this. Grandma would go, "Snuuuuuuuck-ahhhh snuuuu ah-uuuuuck-ahhhh," and Grandpap would follow with, "Bzx-zzzzzt-unh . . . bzzzz zzzzzt-unhhhhah."



It was a veritable chorus of championship snoring, and Harry and I would chuckle and snicker through our noses, trying to be quiet so as not to wake them. Eventually Grandma would get to, "Snuck--snuck---snuck!-snuck!-snuck!----snuck!-snuck!-wh-wh-wh-what's that?!" which also woke Grandpap. They would hear us trying to stifle our mirth in the next room, and one or the other would threaten, "You kids get to sleep, or your Grandma and Grandpap won't bring you to camp no more!"

Snoring Matches

You may think that was not much entertainment, but you have to remember it was 1952. There was only one TV station available to us; Howdy Doody, Captain Video and wrestling were the fare of the day. Against that lineup, the snoring matches won hands down.

All children reach an age, I suppose, when they'd like to change their names, or at least have a nickname. Harry Lee and I were no exceptions. (We accused Mom of having a rhyming obsession.) Harry liked the name "Buck," for undisclosed reasons (Buck Rogers maybe?).

Although my hair was dark brown, I rather fancied the name "Red" for an obvious reason, at least to me. My most recent and prized possession was a Daisy Red Ryder BB gun. "Red Ryder" was burned into its stock, and I thought

it a wonderful idea to own a personalized rifle.

That particular weekend, Harry and I received new names, but not the ones we desired. Early that morning, Grandpap said to me, "Harry Lee, go out and get some kindling." I didn't look up from my comic book, so he leaned over and gently whispered into my exposed ear, "HARREEEEEEE LEEEEEEEE!"

When I got back down onto my chair, I corrected him. "Harry's outside with Grandma." "You know who the *#@% I'm talking to, now go get that kindling." I went to my assigned task, but I noticed an evil gleam in his eye that I liked not a bit.

Stroke of Genius

In a few minutes, he shouted from the door, "Larry Lee! come get this cooler." Harry and I stared at each other in disbelief as we both started after the cooler. With a stroke of efficient genius, he'd rechristened us, thus removing any doubt to whom he was talking. From that day forward, he called us both "Larry Lee," even after we were grown and had presented him with great-grandchildren to torment.

The rest of our weekend was spent fishing the backwater of Tionesta Creek at Lynch. Well, it wasn't really fishing. Grandma enjoyed a good puzzle of any kind, and Harry and I kept her well supplied all day.

Our fishing outfits consisted of old casting rods and reels, with ounce sinkers for weight. We created intricate backlash puzzles for Grandma to untangle. Harry was especially adept at the art of backlashing. He could produce a bird's nest so gigantic it wouldn't fit in a bushel basket. The amazing thing was

that he created those masterpieces with a mere 20 feet of fishing line. Grandma was always ecstatic with these challenges to her puzzle solving talents, and she would eventually unravel them—some weeks later.

Our weekend over, we packed and properly loaded the car. While Grandpap was sliding under the steering wheel, he popped the button on his pants. When he requested one of the "extra" safety pins Grandma kept for such occasions, her sharp intake of breath gave her away. With a quavering voice, as she frantically searched her purse, she whispered, "I must have left them at home."

The earth trembled, the sky darkened, and there followed a stream of paint-scorching oaths and epithets for which Grandpap had become a legend. The raging inferno came to a stop, though, when Grandma conveniently discovered the safety pins in her dress pocket.

That was the most peaceful ride home from camp I can remember. The calm that followed the storm of his outburst was like a sunny Sunday afternoon after church. Grandpap didn't even seem to mind when Harry asked, "Are we almost home yet?"

As the years went by, Harry and I were replaced on those summer weekends by the younger grandchildren. Their adventures, often humorous, became topics of conversation at family gatherings. We'd sit for hours reminiscing about the silly things our grandparents did at camp. One common thread holds all our stories together. Grandma and Grandpap always had time for us, and our memories of them will live for generations.

Upcoming Attractions at Middle Creek and Pymatuning

The upcoming lecture at Middle Creek is "Pennsylvania's Eastern Coyote" by WCO Rodney Ansell, June 19 & 20. It begins at 7:30 p.m. Lectures at Pymatuning begin at 2 p.m. and include: "Beekeeping" by beekeeper Jim Young, May 19; "Wood Carving" by carver John Vanderstappen, May 25; and "Birds of Prey" by falconer Earl Schriver, May 26.



THROUGHOUT THIS CENTURY the goshawk has been considered a rare to uncommon breeding bird in this state. Little was known of its biology because it is difficult to study—it nests in remote, extensively forested regions. The goshawk avoids human contact and rarely ventures above the forest canopy.

Goshawk Patrol

By Timothy Kimmel and Richard Yahner

PAM AND JOHN were standing next to our research vehicle as we approached and asked if they had seen Ron or Kurt. “No, and we’ve been here almost 15 minutes,” Pam responded.

“Maybe they found a nest,” John quipped. We couldn’t help but be amused when we read what John had just traced on the dusty back door of the station wagon, “GOSHAWK PATROL.” Moments later, as we drove down the forest road, we spotted Ron and Kurt walking toward us. They were both grinning, and when Ron reached up and patted himself on the back, we knew they had, indeed, found a nest—the first new goshawk nest of the census. Thus, we were officially christened, “The Goshawk Patrol.”

We were in the Allegheny National

Forest conducting a census of northern goshawks, elusive hawks sometimes referred to as the gray ghosts of the forest. Largest of three accipiter or “woodland” hawks in North America, the goshawk is capable of taking prey ranging from chipmunks and songbirds to ruffed grouse and snowshoe hares. This raptor occasionally nests south of Pennsylvania, in the higher elevations of Maryland, Virginia and West Virginia. The southern edge of its contiguous breeding range in the eastern U.S., however, is considered as central Pennsylvania. In the Keystone State, the goshawk generally is associated with the northern tier counties and mountainous regions.

Throughout this century the goshawk has been considered a rare to un-



GOSHAWKS ARE NOTORIOUS for their aggressive defense of nests. Humans who encounter this defense will not soon forget it—all they can do is hit the dirt as a blue-gray streak rapidly approaches.

sylvania. A primary objective of our study is to determine habitat use by nesting goshawks, and then apply this information to the conservation and management of the species in our state and elsewhere. We also are interested in estimating goshawk numbers in the state, so the status of this bird can be monitored in years to come. No standardized technique for censusing goshawks is available; thus, another objective is to develop and test a census protocol for nesting goshawks.

Special Challenge

Raptor censuses are typically very time-consuming and expensive. We realized from the start that development of an efficient and reliable census technique for such a rare and elusive bird would be a special challenge.

Because the goshawk is rare and inhabits remote areas, we knew that a random census along roadways—a technique used to census more common and conspicuous raptors—would not be feasible for detecting nesting goshawks.

Instead, we developed and currently are testing a census technique that considers two features of goshawk nesting biology—its relatively specific habitat requirements and the tendency of breeding adults to fiercely defend nest sites. We use a computerized habitat model to evaluate habitat variables on a

common breeding bird in Pennsylvania. And until recently, little was known about its biology here. The bird is difficult to study because it nests in remote and extensively forested areas, avoids human contact, and rarely ventures above the forest canopy. The relative lack of information on goshawk biology and the general rarity of this bird in the commonwealth were cited as reasons for this hawk being classified as “status undetermined” in the Carnegie Museum of Natural History publication, *Species of Special Concern in Pennsylvania*, published in 1985.

We are currently in the final year of a three-year study of goshawks in Penn-

Timothy Kimmel is a graduate student in Wildlife and Fisheries Science at the Pennsylvania State University and is studying habitat selection by northern goshawks for his doctoral degree. Dr. Richard Yahner, professor of wildlife management at Penn State, specializes in the ecology and conservation of nongame birds and mammals and is Kimmel's graduate adviser.

The authors are continuing to collect information on goshawk nest sites throughout Pennsylvania and would be interested in any reports of goshawk sightings during spring and early summer. Information on nest site locations is kept confidential, to protect the birds from undue disturbance. The authors can be contacted by writing the School of Forest Resources, Forest Resources Lab, Penn State University, University Park, PA 16802, or by phone (814) 863-3201 or 863-3577.

TIM KIMMEL places metal flashing on a tree to stop raccoons from raiding goshawk nests. In addition to population surveys, researchers also climb into nests to band young and collect prey remains.

large study area and identify the portions of the area most likely to contain nesting goshawks. We then go to these key areas and play taped broadcasts of goshawk vocalizations, in hopes they elicit defense responses by breeding adults. Our goal is to cover about 20 percent of a 300-square-mile study area and feel confident we have located at least 90 percent of the active nests.

Goshawks are notorious for their vocal and aggressive defense of nest sites against human and other intruders. Although many species of hawks may vocally protest when intruders approach their nests, none typically defends nest or young with the intensity of a goshawk. This normally shy hawk seemingly undergoes a “Doctor Jeckyll/Mr. Hyde” transformation during the breeding season.

A typical encounter with an adult goshawk defending a nest is an experience a person will not soon forget. Often, such encounters begin so abruptly that, when attacked, an unsuspecting person can do little more than hit the dirt as a blue-gray streak, with up to a four-foot wingspread, rapidly approaches at eye level. The first hint of an impending attack is usually a harsh, staccato “kak-kak-kak-kak-kak-kak- . . .,” initiated when the angry adult is often less than 20 yards away.

During the 1989 breeding season, we concentrated on studying goshawk responses to taped calls played near their nests. We wanted to determine the most effective call for conducting a census and any effects time of day and breeding season might have on goshawk responses. Also, we wanted to know the distance from an active nest that a breeding adult would likely respond to the recorded calls.

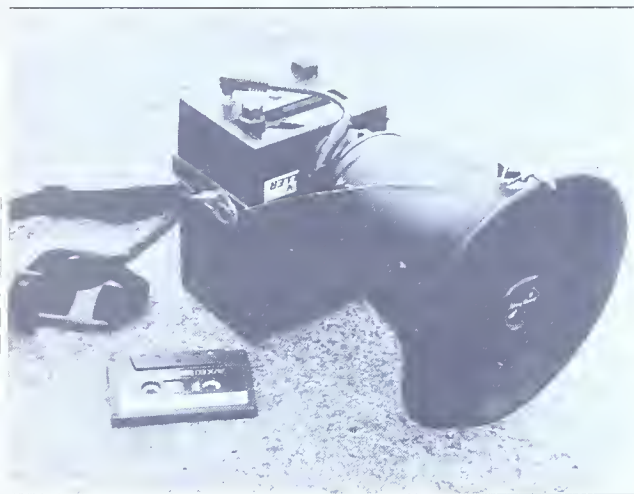
Based upon taped-broadcast experiments conducted near active goshawk nests, we determined that the defensive “kakking” call of an adult goshawk



played during the nestling period (i.e., when young are present in the nest) was most effective. Also, our results suggested that broadcasts played along parallel census routes spaced 300 to 400 yards apart were sufficient to detect most nesting pairs in an area.

Based upon preliminary analysis of the habitat surrounding the goshawk nests we’ve studied so far, it seems—at least on the Appalachian Plateaus Province of northern Pennsylvania, including the Allegheny National Forest—that goshawks tend to nest in the older northern hardwood stands and on high, relatively level ground. Nests often are within a few hundred yards of small streams, and they usually are some distance from forest openings and well-travelled roads. In the Ridge and Valley Province of central Pennsylvania, where oak forests predominate, nesting goshawks almost always are associated with dense conifer stands.

Additional data are needed to produce more accurate habitat models. Thus, an important task throughout our study has been to locate as many goshawk nests as possible. Thanks to information supplied by many birders, for-



THE DEFENSIVE "KAKKING" call of an adult goshawk was recorded and broadcast over a loudspeaker. Goshawks responding aggressively to the calls allowed the survey team to census a portion of the Allegheny National Forest.

esters, hunters, falconers and others, we have cataloged nearly 70 goshawk nest sites that we know were active for one or more of the past 10 years. Most of the sites are acceptable for habitat evaluation and are being used to develop habitat models. Prior to our study, fewer than 25 nest sites were known in the state.

Allegheny National Forest Census

The focus of the 1990 field season was to test our census technique in a portion of the Allegheny National Forest (ANF). Using the habitat model, we evaluated a 320-square-mile study area in the heart of the ANF. Our objectives were to test our habitat model, the ef-

fectiveness of the taped broadcasts for detecting nesting goshawks, and determine the density of nesting goshawks in the study area.

To assist with the study, we recruited volunteers, mostly undergraduate biology students willing to spend long hours walking transects through remote woodlands in exchange for free room and board. Nine individuals participated in the seven-week census and contributed one to six weeks of time. Although sometimes pushed to their physical limits, they all found the experience rewarding and educational. The opportunity to see deer, bear, turkey, coyotes, fox, mink and a variety of raptors, and to experience the solitude of the ANF, was certainly a motivating force for everyone. And the discovery of a new goshawk nest was always a bonus.

The census team walked a total of nearly 1000 miles, covering about 30 percent of our study area. Nine active goshawk nests were found, including three we knew about prior to the census. Although we're confident we found most of the active nests in the area, a few other nests may have existed in uncensused portions. Although we still consider the goshawk to be uncommon in the state, our results in the ANF suggest the bird may be more common in northern Pennsylvania than previously thought.

We were also pleased to learn our census technique is useful for locating goshawk nests, and additional refine-

Acknowledgments

We would like to thank all individuals and groups who have assisted with our goshawk study. The study has been funded by the Pennsylvania Game Commission, the Pennsylvania Wild Resource Conservation Fund, the Western Pennsylvania Conservancy, the Pennsylvania State University (Agricultural Experiment Station), and the Max McGraw Wildlife Foundation. Information on goshawk nest sites, provided by the Pennsylvania Breeding Bird Atlas Project and numerous individuals is greatly appreciated. We also thank the Allegheny National Forest and Bald Eagle State Forest staff for their cooperation and for providing us with housing for our census teams. The cooperation of the Pennsylvania chapter of the National Wild Turkey Federation and those turkey hunters who responded to our survey is appreciated. Finally, we thank the volunteers—Stacey Cooley, Andrea Erichsen, Pam Heidenreich, Cheryl Leahy, Darryl Martino, John Puschock, Kurt Regester and Ron Rohrbaugh—who helped conduct the ANF census.

ments will no doubt improve the technique.

Gobbler Hunters Help—Thanks!

Spring gobbler hunters have been a valuable source of information for us over the years. With a quarter-million or so hunters in the woods during April and May, when goshawks are defending nests, no other group is more likely to encounter nesting goshawks. Last spring we surveyed turkey hunters to see if any could help us locate additional nest sites, and to evaluate the potential of using a survey of hunters as a method for assessing the goshawk population in the state.

The Pennsylvania chapter of the National Wild Turkey Federation assisted in the study by inserting our questionnaire in its April 1990 newsletter, which was sent to its 7000 members. Responses led us to several new goshawk nests, and we currently are using results of the survey to estimate the statewide population of nesting goshawks. This effort clearly demonstrated to us the important contribution

hunters can make with research on nongame wildlife species.

Project Completion

This year—the final year of our study—we will census the Bald Eagle State Forest (BESF) in central Pennsylvania. This census will provide us with another opportunity to evaluate our census technique. Also, once the 1991 census is completed, we will be able to compare densities of nesting goshawks in portions of two major physiographic regions of the state, the Ridge and Valley and Appalachian Plateau provinces.

As our study nears completion, we are confident the knowledge we are gaining about the goshawk in Pennsylvania will be useful for conserving this magnificent raptor here and elsewhere. To us, the goshawk is as much a representative of our state's remote, mountainous forests as are the black bear and bobcat. We hope that many future generations will continue to have an opportunity to experience the gray ghost in Penn's Woods.



LYCOMING COUNTY District Attorney Brett Feese, second from left, received the Commission's Certificate of Appreciation for his continuing interest and assistance in wildlife law enforcement efforts. Presenting the certificate were, from left, county wildlife conservation officers Dennis E. Dusza, Williamsport; Ronald L. Stout, Jersey Shore; and Daniel E. Marks, Montoursville.



Leonard Lee Rue II

GAME BIOLOGISTS' tracking studies have revealed that a significant percentage of the state's hens are being illegally killed during spring gobbler season. It's necessary to have a high reproductive rate to replenish wild turkey populations each year, and the destruction of hens in spring can have a large impact on our birds.

A Hen in Trouble

By Arnold H. Hayden
PGC Wildlife Biologist

TWO HOURS before daylight, a hunter waits for his friend. At 5 a.m., he sees the twinkle of far away headlights turn to a steady glow as the car approaches his driveway. The camouflaged hunter picks up his shotgun, opens the door, and the two friends greet each other.

The spring wild turkey season is about to open. These hunters have been scouting an area and have been locating two gobblers for the past several mornings. They drive to the area, park, and in muffled tones plan their morning hunt. They walk slowly up the hill in the darkness, being careful not to break even a stick.

The eastern sky begins to lighten and the voice of a robin breaks the early

morning quiet. A barred owl erupts with a long series of calls, then the dawn is shattered with the loud gobble of a tom. The hunters quietly move above the gobbler and station themselves against a large tree. The tom gobbles again and several crows begin to call. It is 15 minutes before sunrise.

One of the hunters puts in a mouth call, cups his hand and gives a soft yelp-yelp-yelp. The gobbler answers not once but three times. The hunters tremble with excitement. Then the stillness is followed by a gobble that could hardly be heard. The hunter calls again and the tom responds. This time it sounds a little louder. The tom had flown to the ground and is beginning to approach them.

As the tom begins walking up the hill, two hens run in and join him. He struts for awhile and gobbles to the calls up the hill. Curious, he begins walking up the hill toward the call, followed by the two hens. They stop just below the lip of the bench and the gobbler begins to strut. The hunters see only the tom's fan, slowly revolving. Then it disappears. They wait a few minutes and call again. The call is followed by a long, loud gobble. The hunters are ready, they can hear the bird walking in the leaves toward them.

They see a turkey's back and suddenly a head pops up. One hunter shoots and then quickly heads over to the flapping turkey. He grabs the bird and begins to admire his trophy—only to find it's not a legal tom; it's a hen.

Disgusted with himself, he also notices there is some sort of package on the bird's back. When his friend arrives they talk over the situation and examine the package. It looks like a radio transmitter, they conclude, attached to the turkey with latex tubing. The hunter who shot the hen cuts the tubing and the transmitter falls off. They examine the transmitter and see a wire beneath some kind of material connected to a battery. They cut the wire and throw the transmitter down over the bench. Little do they know they cut the wrong wire. The transmitter is still sending a signal.

The hunter stuffs the hen inside his coat, walks down the hill and waits near the road. His buddy drives up, gets out, looks up and down the road, and motions to the other hunter. The hunter runs to the car, stuffs the turkey into the trunk and off they drive, having no idea I will recover the transmitter.

You might think this is a rare occurrence, but it's not. During the period from 1974 to 1979, we had instrumented over those years a total of 26 hen turkeys. We tracked them through May to determine nesting success. Most of the hens were successful in raising a brood of turkeys. However, four of those hens, (15 percent) were apparently killed illegally during the

spring season. Put another way, we could conclude that out of every 1000 hens alive in late April, 150 were illegally killed during the hunting season.

Furthermore, from 1982 to 1988, we studied seasonal home ranges and habitat preferences of wild turkeys. The study was not designed to determine mortality, but it nonetheless disclosed more information about spring season losses. During the years, 42 hens were radio-tracked through the nesting season. It immediately became apparent that something was happening to some of our instrumented hens during the spring turkey hunting season. Turkeys radio-tracked in the afternoon on one day would vanish by the next afternoon.

In one instance, in the spring of 1988, a logger witnessed somebody trying to shoot one of my instrumented hens. The logger had frequently seen the hen on the road, as she was nesting in a clearcut next to the road and was using the road as a travel lane. When the logger blew his horn the hunter quickly left the scene.

Suspicious Confirmed

I was hunting a half-mile away the next morning. Shortly after dawn I heard two shots come from this same area. There goes that hen, I thought. Later that morning, using my receiver, I began checking my radio-instrumented hens. I wanted to locate them and determine their nesting activity. My suspicions were confirmed; she was gone. An immediate search indicated she was nowhere within a several mile radius.

Two other instrumented hens were nesting in the same clearcut that spring, and I suddenly realized that one of the hens seemed to have shifted its nest from the clearcut, across a power line, and into the adjacent forest, assuming I had accurately located her nest in the first place.

But I had to wait 28 days, the length of incubation, to determine the status of this hen. I didn't want to flush her, and possibly cause her to abandon her nest—if she was alive. On the 29th day

I walked in and began searching for the turkey and/or the transmitter.

Telemetry fixes indicated I was within five feet of the transmitter, but I couldn't find the bird. Then, suddenly, at eye level, something caught my attention. There was the transmitter, hung neatly on a small limb. The harness had been cut so it could be removed from the turkey. Marks on the transmitter indicated the hen had been shot from the left side.

26 Percent

When the wild turkey habitat preference study was completed in 1989, 26 percent of the 42 instrumented hen turkeys that had been tracked in the preceding spring seasons were suspected or known to have been illegally killed. Interestingly, of the instrumented hens suspected of being shot during the spring gobbler season, only one was not retrieved and taken by the shooters.

In summary, out of 68 hens that had been instrumented and monitored during the spring months from 1974 to 1989, 15 were suspected to have been killed by hunters, for an average loss of 22 percent. To put this into perspective, out of every 1000 hens in our population in April, 220 were suspected to have been illegally killed.

In Pennsylvania we have a long tradition of fall turkey hunting, and we harvest a significant percentage of the population. Adult toms, however, are difficult to harvest during the fall. Beginning in 1969 we added a spring tur-

key season so adult gobblers that had avoided hunters during the fall season could be harvested.

It is necessary to have a high reproductive rate to replenish the wild turkey population each year. During a good year it's not uncommon for a hen to raise six or seven poults, and normally the reproduction rate is more than sufficient to sustain a fall harvest and the removal of toms during the spring season.

However, we certainly don't need a 20 to 25 percent loss of breeding hens during the spring due to careless hunting practices. A further problem arises when we have a poor reproductive year and the number of poults per hen declines to three or four. The combination of illegal hen loss and low reproduction can quickly lead to a declining turkey population.

There are possibly up to 400,000 turkey hunters. It will become increasingly difficult to manage the wild turkey because of future habitat loss and increased human population. If we harvest too many turkeys, whether legally or illegally, we greatly compound the problem. If we want to continue to have fall and spring hunting seasons in their present form we must be more careful.

The target in the spring season is a *BEARDED* wild turkey, not a hen. Positively identify your target, be patient and take a second look, and above all, be careful of other hunters. Take the responsibility and be the one to help ensure that the wild turkey continues to be part of Pennsylvania.

Valley Forge Site of NRA Deer Clinic

NRA is hosting its first National Whitetail Superclinic at the Valley Forge Convention Center August 10-11. The two-day program will feature a number of experts in the field of whitetail deer hunting, including Jim Zumbo, John Wootters, Dick Idol, Gene Wensel, Mike Ondik and others. Among the topics covered will be gearing for the hunt, bowhunting and muzzleloader hunting, calling and scents, and other information designed to teach attendees the finer points of white-tailed deer hunting. Registration is \$95 per person, which includes the programs and sample products from outdoor manufacturers. Lodging is not included. To register, call (202) 828-6240.



WHILE DRAGGING a bow-killed buck out of a swamp, the author and his partner were treated to an unusual display. A mink charged their kill and attacked it. The animal followed the pair out of the swamp all the way to their vehicle; each time they stopped dragging the deer, the mink renewed its attack on the dead animal.

Mink Attack

By John Crooks

BOW IN HAND, I somewhat reluctantly stepped out of the warm truck into the cold predawn October darkness. I quietly shut the door and started my long walk into the dark, eerie swamp.

I'd bowhunted this big swamp for years and was familiar with the area. My thorough scouting trip the day before had turned up several good scrapes. One big one was located in heavy cover near the swamp's main channel, near the intersection of several well-worn deer trails. The entire swamp bottom was laced with muddy, churned-up deer trails, scrapes and buck rubs. Deer sign was everywhere.

I was confident as I approached my stand. Years of bowhunting experience had taught me to position myself 10 to 15 yards from the selected scrape. This would help ensure a close, accurate

shot. Within 30 minutes, I was standing quietly.

Soon after daylight, deer began funneling past my stand, all does and fawns. I was watching the antics of two yearling fawns under my stand when I caught movement out of the corner of my eye. A buck, head down, was coming from the direction of the channel and cautiously approached the downwind side of the scrape. He began rubbing his eye glands on the scrape's well-worn overhead limb. The 6-point was certainly putting on quite a show.

I had my mind on a trophy whitetail and had no intention of taking this particular buck. But at 10 yards and broadside, the fat 6-point began looking better by the minute.

Suddenly the buck became alert. He stopped working the scrape and cautiously surveyed his surroundings. For

some reason, he slowly raised his head and stared directly up at me—camouflaged and motionless in my stand. He seemed to sense that something wasn't quite right, possibly a down-draft had betrayed my position.

After several minutes he lowered his head, apparently satisfied that the form above him posed no threat, and started to finish his scrape cleaning chores. That was a fatal mistake. I slowly brought my 70-pound Martin Cougar Magnum compound to full draw and settled the sight pin slightly behind the buck's shoulder.

At my shot, the buck charged off into the swamp. I had seen the fledging disappear exactly where I had put the pin. Confident of a good hit and quick kill, I slipped quietly out of the tree and returned home to call a couple hunting buddies for help with the trailing.

Nightmare

What normally should have been an easy blood trail turned into a nightmare. We soon found the arrow; it somehow had been deflected by a rib and had gone down and out through the bottom of the deer.

"Just what we need," I muttered to myself, "a wounded buck, off in a rain storm, through a cattail infested swamp."

The buck was constantly in and out of the water, making tracking very difficult. I'd never lost a buck I'd shot with a bow, and I was determined to find this one at all costs.

Unfortunately, we were working the afternoon shift and had to call off our search until next morning. On the other hand, though, it was turning colder and snow was starting to fall.

Dave and I resumed the search at first light the next day, but we weren't having much luck until we heard a flock

of crows causing a commotion a little farther into the swamp. It was worth investigating, and luckily the noisy crows led us to the expired buck. After a brief photo session we began the long drag back to the truck.

We had gone only 50 yards or so and had stopped to catch our breath, when I looked up and saw it—a large mink following our drag marks in the leaves.

"Look, Dave," I said, "Stand still; let's see what he has in mind."

As we watched in amazement, the mink charged and savagely attacked the buck. We soon discovered that a hungry mink can be a very vicious animal. Time after time, actually running over our hip boots, the mink circled and attacked the buck. It was so intent on the attacks that it never seemed to notice the two spellbound bowhunters on the other end of the drag rope.

I finally remembered my camera and took several pictures. Before long we could stand it no longer, and just burst out laughing. "What do you think, Dave?" I asked.

With a big grin, Dave replied, "That critter's either crazy or awfully darned hungry."

Our excited conversation didn't seem to bother the animal. As we continued our drag out of the swamp, the mink followed. We were playing a sort of tug-of-war with the determined little animal. Each time we stopped to rest, it repeated its attacks. Obviously, it had claimed this buck as its own.

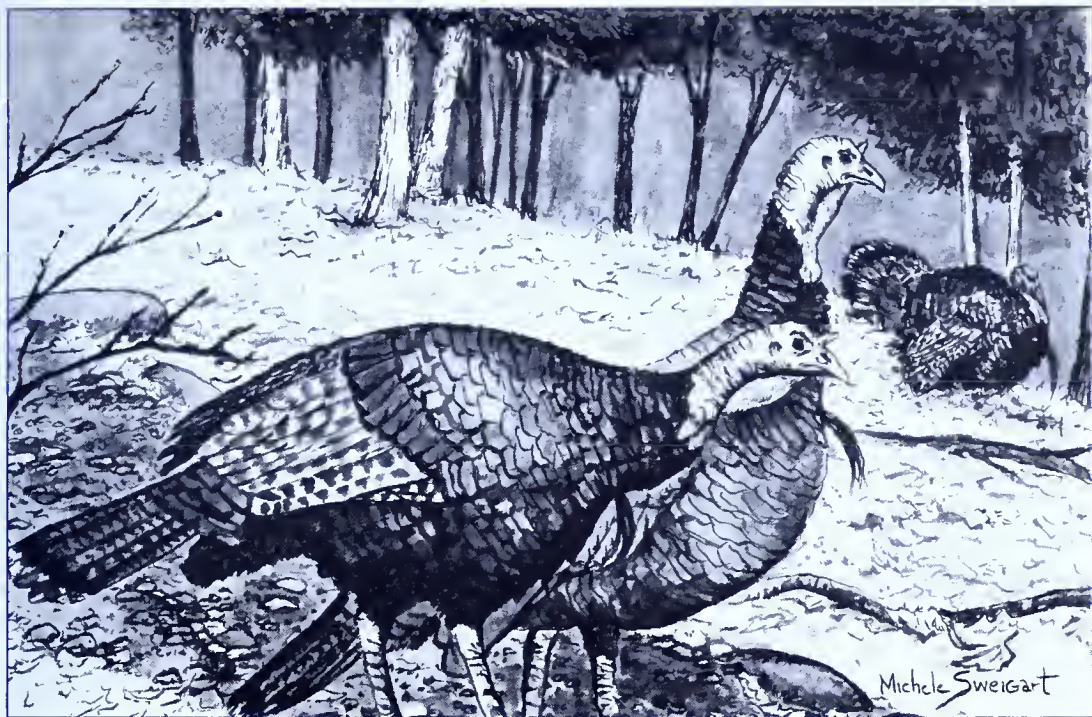
The mink followed us to within 50 yards of our pickup and, after what had been more than an hour of constant harassment, it retreated to the safety of the swamp.

Needless to say, no matter how many deer I take, that little 6-point—and the memory of the mink attack—will always be special to me.

Thoughts While Walking

Conscience is the inner voice that warns us somebody may be looking.

—Henry Louis Mencken



WITHIN MINUTES they came into view. About 80 yards away, down an old logging road, walked a large gobbler and two smaller birds that appeared to be jakes. Jim continued to call and the birds moved closer, the large gobbler leading the parade.

Duel in the Fog

By Monica Hoodak

THE ALARM CLOCK woke me at 3:45. It was the opening day of spring gobbler season, my first. My husband, Jim, quickly jumped up and woke our friend Ron Allen.

We scurried about, pulling on our camouflage clothing. I was still half asleep, thinking how crazy I must be to get up so early on my day off.

Jim walked outside to check the weather and assured us it would be a nice morning. After a quick cup of coffee we headed out. Driving through town we passed a number of four-wheel-drive vehicles with occupants wearing painted faces that made them look like they were going to war. I couldn't help but think how funny we must look to non-hunters.

At 4:45, after parking the car, Jim gave me a quick refresher course. "No quick moves," he said. "Remember where to aim?"

"Yes," I said. "I know."

With a reminder to Ron not to slam the car door, we slipped into the woods. Ron and Jim had been scouting this area of Bradford County for a month, and they had roosted a couple gobblers the night before.

It was a little after five o'clock as we walked up a logging road that passed between some old fields. I was lugging my Ithaca Model 51, still thinking spring turkey hunting was a crazy idea. I was panting and puffing up the trail, more than willing to turn back. This was hard work.

A gobbler from the edge of a field stopped us in our tracks. My attitude began to change as I realized there were, indeed, turkeys in the area. Maybe we had a chance.

We formed a huddle. "We're late," Jim whispered. "It's almost daylight. I'd like to get closer, but we'll have to set up

THE MOISTURE that boiled up inside my face mask began collecting on my glasses. I tried with my thumb to push the mask up and, I hoped, alleviate the problem. It only made matters worse.

fast.” He motioned for Ron to position himself off to the left and led me to the edge of the logging road, placing me against a wide hemlock.

“Don’t be nervous,” Jim said, giving me a quick good luck kiss before moving to his calling position a few yards behind.

Several minutes later, Jim started the first series from his Oakman push-button call, and he got an immediate answer from three or four gobblers. I couldn’t believe it. I had no idea they were so close. I quickly pulled down my face mask and brought my gun into position, and then sat stock-still as I peered in their direction.

Five minutes later they came into view. About 80 yards away on the logging road walked one big gobbler and two smaller birds that appeared to be jakes. I remained motionless but my nervousness grew.

Jim continued to call, adding a Quaker Boy diaphragm to his repertoire. The birds continued to close the gap, with the largest gobbler in full strut leading the parade, his huge beard nearly dragging on the ground.

I started breathing heavily, and the moisture that boiled up inside my face mask began collecting on my glasses. This is it, I thought. My perfect chance and I’m going to blow it.

The fog on my glasses got increasingly thicker, and the birds had not yet walked up to an old stump I was using for a shooting range marker. I could see the four- to five-inch beards on the smaller gobblers, but the big gobbler had disappeared from view.

The left lense of my glasses had fogged completely, and I watched the turkeys in front of me through a nickel-size clear spot in the right lense. Slowly, carefully, I tried with my thumb to push the mask up over my lips in hopes of alleviating the problem. I only made matters worse.



The jakes had moved just to within my shotgun’s range and were gobbling madly. Although I would’ve rather waited until they came even closer, the fog was beginning to totally obscure my vision. For a moment I considered allowing them to pass by, but I realized they weren’t working toward Jim or Ron. Chances were they’d see me and spook.

I waited until the nearest jake stretched his neck to gobble, and then fired. The bird dropped immediately. The other jake flew off, and we never did see the “boss” again.

Jim came over and gave me a congratulatory hug, and he and Ron listened while I related the story—through fogged glasses. I told them of my battle with the misty lenses and how I’d almost been in tears at the thought of messing up the chance of a lifetime. For all that had taken place, it was only a little after six o’clock.

We moved to another location, and Jim killed a 16-pounder. By 8:30 we’d had two setups and two birds. Then it began to rain, and the first day was over.

I realize I was especially fortunate that morning. I’ve hunted deer for many years, but never has my heart pounded like it did at the sight of those gobblers coming in. And I learned a valuable lesson as well. Next time I’m wearing face paint instead of a mask.



WINNERS of the agency's **SPORT** essay contest were honored during the April meeting of the Pennsylvania Game Commission. Flanked here by Executive Director Pete Duncan and Commission President Ed Vogue, Jr., are Chas Burkhart, runner-up in the senior category; Michael Magoulick, winner of the junior category; Eric Bush, winner in the senior category; and Jason Martin, runner-up in the junior category. Also during the ceremony, representatives of Savage Arms and TASCO were given **SPORT** Awards for supporting the contest.

SPORT Essay Winners

By Jim Filkosky, Chief

Hunter-Trapper Education Division

TO PROMOTE sportsmanship and increase public awareness of wildlife law enforcement, the Game Commission, with cooperation from the Savage Arms Company and TASCO, conducted a **SPORT** essay contest. As announced in last October's **GAME NEWS**, students 12 through 18 years of age were encouraged to write an essay on "Sportsmen Policing Our Ranks Together—What It Means To Me and How I Can Help."

Nearly 300 essays were submitted, and just for participating, every entrant received a **SPORT** cap and a sew-on embroidered patch. The top winner in the junior and senior categories each received a Savage Arms centerfire rifle. The runner-up in each division received TASCO 7 x 35 wide angle binoculars.

The winning entries were selected by a panel of judges familiar with writing and **SPORT**. Eric F. Bush, Muncy, a 12th grader at the Muncy High School took first place in the senior division. First place in the junior division went to Michael J. Magoulick, Patton, a 9th grader at the Cambria Heights Senior High School. Runners-up were Chas T. Burkhart, Johnstown, a 10th grader at the Central Cambria High School, and Jason E. Martin, Mount Joy, grade 9, Donegal High School.

Since it was adopted in 1976, the Game Commission's **SPORT** program has garnered national acclaim for promoting good outdoor ethics among all outdoorsmen.

On the following pages are the winning entries in the junior and senior categories.

Sportsmen Policing Our Ranks

W

By Eric F. Bush

Senior Winner

I feel that the "Sportsmen Policing Our Ranks Together" program is a union of fellow sportsmen with a common dream. Their inspirations having a common concern within the outdoor community. Regardless of their particular activity—hunting, fishing, trapping, photography, or other recreational endeavor—it is imperative that sportsmen provide a unified bond between themselves and others.



As a unified group we are defending our rights as citizens to enjoy our sport while promoting game management and environmental productivity. Striving for a better life for wildlife and man.

"Sportsmen Policing Our Ranks Together" means a common ground for education and communication between its participants. It is like an insurance policy to other hunters, giving them a sense of security. Sportsmen know that the hunter on the other side of the field has had the fundamental train-

ing and experience to allow him or her to safely hunt. It is not a guarantee that the hunter will obey the laws or the unwritten code of ethics, but the knowledge was conveyed to the individual. I feel that this is the case when it becomes the sportsmen's "duty" to police the ranks and to report violators and to encourage others to follow the game codes.

"Sportsmen Policing Our Ranks Together" promotes safety and creates opportunities of success for everyone.

I can help by promoting the proper attitude in the field and in public. I can discourage bragging of game losses and hunter ignorance. Instead I can converse about methods of game trailing and shot placement.

I feel that it is important for me to read editorials and magazine articles to maintain a current knowledge which I can properly relay to others.

Other concerned sportsmen and I can voice our opinions and objections to legislation which can seriously affect our sport by writing to public officials and law-makers. Also, by joining an organization dedicated to hunting I can obtain up-to-date information on bills and future law making plans.

As a sportsman, I feel obliged to educate others as to

ther—

t Means To Me and How I Can Help.

the purpose and need of the game laws and to report any violators to the proper authorities.

Most importantly, I enjoy encouraging others to join the ranks of "true" sportsmen dedicated to the betterment of our wonderful sport. The sense of satisfaction knowing that I am a member of a team of fellow enthusiasts concerned with the preservation of our heritage and the protection of our sport's future is overwhelming.

By Michael J. Magoulick

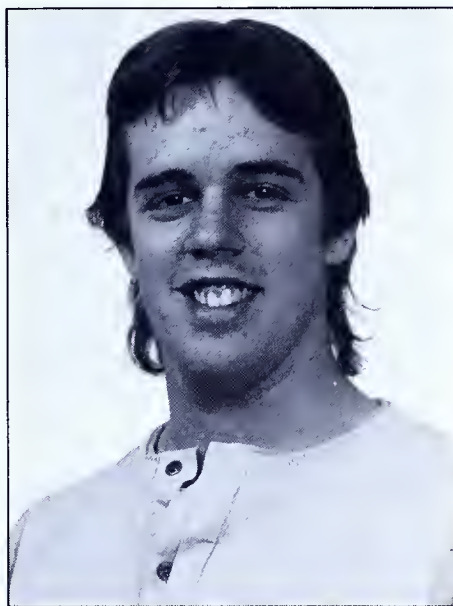
Junior Winner

As a licensed hunter I realize every time I hunt or trap I am representing every other hunter in the state. My actions in the field reflect on all of us, whether they be good or bad. Anyone who purchases a license can be called a hunter, but it is much more important to be called a sportsman. Unfortunately some hunters don't think this way and they give us all a bad reputation whether we deserve it or not. These people can only be called SLOBS, and the SPORT program gives me a chance to get these people to clean up their act or eliminate them from our ranks.

This can be done in many ways—some very simple, such as not littering, or asking permission before I hunt, or reporting game law violations to my local wildlife conservation officer. I can also help by obeying all game laws, respecting the rights and property of others, respecting wildlife, and making sure that my hunting partners do the same.

Today's hunter is under pressure like never before to show by his or her behavior that he is an ethical person. With all the anti-hunting, anti-trapping people today we are being judged like never before. The more that hunters and trappers behave in an unsportsman like manner, the more ammunition it gives these groups to use against us and it closes more land to hunting.

So before it is too late and we lose this sport of hunting forever, we should all try a little harder and remember the future of our sport is in our hands.





FIELD NOTES



Serves Him Right

WESTMORELAND COUNTY—Deputy Gerald Little and I arrested two people for shooting three antlerless deer in buck season. They were fined \$1500—\$500 for each deer. One of the offenders later called to let me know he'd made arrangements with a local magistrate and had pled guilty. The guy also told me he and his girlfriend had come upon three stray kittens and tried to capture them. He got bitten and was then advised by health officials to get rabies shots. The offender ended the conversation, muttering something about an empty wallet, a swollen hand and a devout wish that he'd left wildlife alone.—WCO Joseph V. Stefko, Greensburg.



A Hardier Breed

DER Forester Mark Bodamer was in northern Mercer County when he saw a flock of seven Sichuans formed in a ragged circle on a road. Six hens and a cockbird had surrounded a large black and white cat. The pheasants took turns rushing in and drawing back from the cat. This continued for a few minutes until the cat was able to sneak away.—LMO James Deniker, Sandy Lake.

Surf and Turf

WAYNE COUNTY—During muzzle-loader season I checked a hunter who didn't have a deer tag. He said he was hunting small game, and he had three fat rabbits in his vest. The hunter said he'd killed his deer earlier, so he was going after small game while his dad fished Upper Woods Pond. It turned out that Dad had scored on some trout, so I'm sure they enjoyed their fresh "surf and turf" meal.—WCO John C. Shutkufski, Damascus.

Safety First

ERIE COUNTY—There's no question that turkey hunting has become very popular in recent years, and I think one of the main reasons for this is the challenge the sport provides. It's an elite sport, not in the sense that one has to belong to a special club or invest a great deal of money, but in that the hunter has to hone his skills to meet the challenge. It's sometimes easy to lose sight of the fact that there are other hunters out there. I hope hunters will keep that in mind during the spring season.—WCO Jack Farster, Albion.

Wise For His Years

Following a day of turkey hunting last fall, we returned to camp. Later that evening, several local hunters stopped by to see how we did, and they related an interesting story. It seems a young hunter, 13 years old, was getting ready to go out that morning when he happened to look through the lunch his grandmother had packed for him. He pulled from the bag a soda can and said: "I can't take this along. These colors are the same as a turkey's head." That sort of incident gives me confidence that our hunter-ed program is working.—Video Production Specialist Hal Korber, Harrisburg.

Grateful Nonresidents

While working a timber sale on SGL 35 last fall, Forest Technicians Dan Wheal, John Deeter and I had the opportunity to talk with two nonresident bowhunters. Instead of complaining about a lack of game, the hunters expressed their appreciation for the conditions on the state's game lands—especially the food plots, shrub plantings and roads. They also said they liked hunting around the timber sales because of the excellent cover the clearcuts and thinnings have to offer. The New Hampshire natives said deer are few and far between where they live, and they were happy to see so many whitetails here. — Forest Technician Jim Reap, Taylor.

And So It Goes

LYCOMING COUNTY—A local hunter was particularly excited about doe season because it was his daughter's first year of hunting. He scouted the area they were to hunt and worked out a strategy. On opening day they headed into the woods early, and they weren't on the stand long before a deer headed their way. He told his daughter to get ready. The deer finally stepped into the open; it was a beautiful 6-pointer. It was also the only deer they saw the entire day. — WCO Dan Marks, Mountoursville.

Winter Work

One of the winter tasks accomplished by the Food & Cover Corps is pruning and releasing apple trees. This entails clearing shade trees around the apple trees and removing their dead limbs. The process allows the tree to expend its energy on fruit production rather than on growing upward to reach sunlight. Cut shade trees are used to construct brushpiles for small game cover. Stands of mature aspen are also cut to allow regeneration through root suckers. — LMO Keith E. Harbaugh, Meadville.



Don't Count On It

McKEAN COUNTY—While patrolling SGL 61 during deer season, we approached a father and his young son dragging a deer up an old roadbed. Upon seeing us the father dropped to his knees and looked skyward, as if his prayers had been answered. It was two miles to the game lands gate, uphill, with no snow cover. We loaded his buck on our vehicle and hauled it out for him. Each year we haul several deer out while patrolling game lands. I hope these hunters don't plan on us being there every time they go hunting. — WCO James E. Rankin, Port Allegany.

Great Safety Record

SNYDER COUNTY—I'd like to commend the hunters of this county for their excellent safety record. I haven't had to investigate even a minor hunting accident for almost four years. It wouldn't bother me a bit if they keep this string going until I retire. — WCO John B. Roller, Beavertown.

Plan(t) For Wildlife

MONTOUR COUNTY—Now that winter is over and thoughts are on fishing and other warm-weather activities, don't forget wildlife. Plan now for Planting for Wildlife. Contact your Game Commission region office to find where you can purchase seedlings and seed mixture packets. — WCO Peter F. Aiken, Watsontown.

Wait 'Til Next Year

LANCASTER COUNTY—Hunter-ed instructor Stan Gingerich had a great hunting season last year. Stan bagged a turkey in the fall and went on to tag three deer, one each in archery, antlerless and muzzleloader seasons. His only regret is that he didn't apply for a bear license.—WCO Dennis L. Neideigh, Salunga.

Addressing A Problem

WARREN COUNTY—I'm amazed at the number of people who've made negative comments regarding Commission efforts to make turkey hunting a safer sport. Considering the amount of anti-hunting sentiment present today, we all have to do our part in improving safety regulations. While I don't agree with some of the proposals, I do agree with many of the ideas and suggestions that "We have to do something."—WCO James W. Egley, Tidioute.



Ho, Ho, Ho

CLEARFIELD COUNTY—On the last day of buck season, Deputy Russ Bell and I went to interview a suspect at his place of employment—Clearfield Mall. We waited to question him until his shift ended, and when we met him after work he was still dressed in his work clothes—a Santa Claus outfit. No wonder I got only coal in my stocking this year.—WCO Colleen M. Shannon, Luthersburg.



How To Take Advice

BEAVER COUNTY—Preparing for a duck banding trip, I talked to fellow officer Dave Myers. When he asked if I had chest waders for the job I told him my hip boots would do just fine. Wrong. My first step off the bank was straight into very cold, waist-deep water. Later, as I prepared to check a trap in a marsh, Dave asked whether I'd like to take along his wading stick. I replied that I didn't need one of "those things." Well, now there is always a pair of chest waders and a walking stick in the back of my vehicle.—WCO Keith A. Falasco, Beaver Falls.

On Second Thought

MERCER COUNTY—As I finished the paperwork on a hunter I was citing for possessing an untagged deer, he said something that surprised me. He apologized for his earlier behavior and then thanked me for treating him fairly. A half hour before, he'd been belligerent and uncooperative, and remarked how the Commission had a bad reputation because guys like me harass good hunters like him. I suppose his initial reaction was purely defensive and as the incident wore on he became willing to take responsibility for his actions. The apology came from the real person, the initial comments from his defensive armor.—WCO Donald G. Chaybin, Greenville.

Instant Success

COLUMBIA COUNTY—A local landowner contacted an area trapper about taking care of some beaver damage. When the season opened, the trapper began checking the small stream and he saw a beaver swim into a hole along the bank. The man began making a set there, and before he could put the finishing touches on it the beaver swam out and was caught. I asked the successful trapper if he'd like to become a pest control agent. In one fell swoop the landowner's problem was solved, the trapper benefited from the fur and a valuable wildlife resource was utilized, not wasted. —WCO Steve A. Smithonic, Catawissa.

Supporting Our Troops

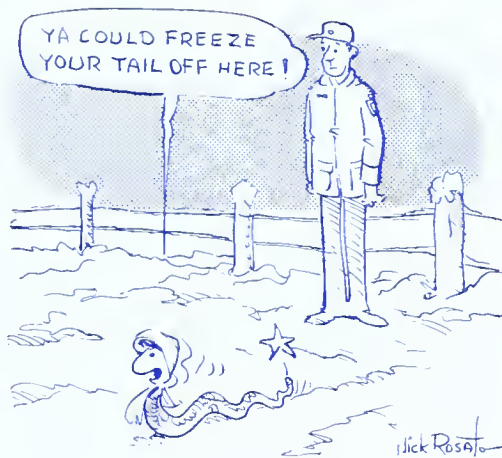
LANCASTER COUNTY—While I was working at the Farm Show this year, a man approached the booth and purchased five **GAME NEWS** subscriptions. He explained that as a Farm-Game Cooperator he was already receiving the magazine. The subscriptions he was buying were being sent simply to Operation Desert Shield. I think that's an outstanding gesture, and I'm sure our sportsmen and women stationed in the Persian Gulf appreciate it. —WCO Ted Fox, Ephrata.

Hotspot Hunt Success

BLAIR COUNTY—The initial run of the "hotspot" deer hunt held in January came off with relatively few problems. The complaints I did receive concerned hunters wandering off the designated areas. That's a problem we'll have to address if the program continues. But this new hunt also had a very positive effect as it introduced hunters to landowners who wanted relief from deer damage. The farmers I talked to were pleased with the courtesy shown them by sportsmen, and the outdoorsmen were happy to find new hunting areas they can take advantage of next year whether the "hotspot" program continues or not. —WCO Steve Kleiner, Altoona.

Forecast Looks Good

ELK COUNTY—Throughout buck season I heard a lot of complaints about the lack of buck. But in the antlerless and muzzleloader seasons everyone was talking about all the "horns" they saw. One hunter told me that the first five deer he saw in doe season were bucks. It sounds like we'll have some nice trophies available next season. —WCO Dick Bodenhorn, Ridgway.



Yours Would Be, Too

CRAWFORD COUNTY—While patrolling Beaver Township in January during muzzleloader season I saw a garter snake crawling along the road. The temperature was 35 degrees and the road was covered with snow. I don't know what the snake was doing outside in that weather, but I'll bet its stomach was cold. —WCO Dave Myers, Linesville.

Unfair Odds

SCHUYLKILL COUNTY—While checking a report about a dog that had been allegedly killed and eaten by a bear, I found that the work had instead been done by a coyote. Biologist Arnie Hayden related another instance in which a sportsman who'd taken his coon hounds after coyotes. The dogs hit a hot trail, and the hunter soon heard sounds of fighting animals. Then he watched in amazement as his two dogs beat a hasty retreat with four coyotes on their heels. —WCO Stephen S. Hower, Tremont.

Changing Quarry

On the last day of 1990 I checked the hunting pressure in my four-county area. I was amazed at the amount of hunting pressure where rabbit concentrations were high. I saw more hunters that Monday than I did on some Saturdays during the general small game season. I also noticed that the low number of grouse in southwestern Pennsylvania right now has made hunters change their habits. Parking lots where it had previously been difficult to find space were now nearly empty. If hunters are willing to be versatile in the quarry they pursue, there are a lot of opportunities available. — LMO R.B. Belding, Waynesburg.



Important Discovery

BRADFORD COUNTY—After many years of deer hunting, an avid rifle hunter converted to muzzleloading. When a nice deer presented itself, Gary quickly took aim and squeezed the trigger. He waited for ignition, but it never came. Gary recocked the rifle and tried again, with the same result. While the deer stared at him, Gary quickly poured new priming powder onto the pan, but when he shot again the gun still wouldn't fire. Gary's friend Bill wandered over and checked the rifle: no powder. Gary said he was sure he'd recharged the pan. It was then discovered that Gary's primer powder flask was empty. — WCO Edward N. Gallew, Wyalusing.

Man-Made Hazards

BEDFORD COUNTY—Wildlife faces many hazards in its fight to survive, including many man-made obstacles. I was investigating the death of a juvenile red-tailed hawk. It was lying on the ground under a power line, and my first thoughts were the bird could've collided with the wire while attempting to capture food or it could've been shot. But when I examined the hawk I found its talons burned off and feathers singed; it apparently had been electrocuted. — WCO R. Jim Trombetta, New Enterprise.

Help Always Appreciated

LUZERNE COUNTY—I'd like to take this opportunity to express my appreciation to the deputies who helped shoulder law enforcement responsibilities during the past year. I'd also like to thank other law enforcement agencies that extended their assistance, and to the SPORT-minded citizens who cared enough to report game law violations. — WCO Donald R. Burchell, Dallas.

River Otter Return

SUSQUEHANNA COUNTY—River otter populations are on the upswing here. I think this is perhaps due in large part to increasing water quality. Regardless, it's good to see the otters coming back. — WCO Charles J. Arcovitch, Kingsley.

Predator Problems

ADAMS COUNTY—Frank Darcey, Jr., local farmer and cattleman, has been experiencing problems with foxes. Foxes killed his wife's peacocks and all but one of her chickens. The surviving hen was placed in the barn for protection, but as soon as she laid a clutch, a fox came in and took them. A raiding animal later stole a golf ball placed in the nest as an egg substitute. Shortly after the golf ball incident, a fox killed the hen. — WCO L.D. Haynes, Gettysburg.



THE 1990 HUNTING SEASON accident report shows last year to be the second safest on record. Through the efforts of the hunter-trapper education program, hunters are becoming more aware of safe gun handling and safe and ethical hunting practices. Unfortunately, 1990 also posted the highest number of turkey hunting accidents.

1990 Hunting Accident Report

THERE WERE 121 hunting accidents in Pennsylvania last year, according to the Game Commission's annual hunting accident report. The total includes eight fatal accidents, two more than in 1989.

Hunter-Trapper Education Chief Jim Filkosky says last year's accident total is comparable to those posted in the previous five years, an annual average of 125. Yet, he notes, there were an inordinate number of turkey hunting accidents—a total of 46 in the spring and fall seasons.

"In one year, the number of turkey hunting accidents in Pennsylvania went from 23 to 46, an alarming 100 percent increase," Filkosky says. "The 46 accidents, which include four fatalities, top a five-year annual average of 29 and represent a significant problem that requires attention."

Most turkey hunting accidents were caused by hunters who mistook other

hunters for turkeys. A breakdown of the accidents is: shot for game, 34; victim in line of fire, 9; stray shot, 2; and accidental discharge, 1. Of the 46 accidents, 38—including three of the four fatal shootings—occurred in the fall season.

"If not for the two-fold increase in turkey hunting accidents, Pennsylvania would likely have had fewer than 100 total hunting accidents in 1990, which would have been a record low," Filkosky explains. "But last year, the number of



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turkey hunting accidents surpassed those among deer hunters, which amounted to 37 in 1990. That's the first time the number of turkey hunting accidents exceeded those for deer since the Game Commission began categorizing accidents by type of game being hunted.

Troubling Statistic

"What's troubling about the high number of turkey hunting accidents is that they were committed by a group of hunters estimated to number 300,000 in the fall and 200,000 in the spring," Filkosky said. "There are about a mil-

lion deer hunters, and yet they were involved in fewer accidents.

"One of the primary rules of hunting safety is broken when a human is shot in mistake for game," Filkosky says. "Being positively sure of the target and what is beyond it before pulling the trigger would all but eliminate turkey hunting accidents."

On a more optimistic note, the 121 hunting accidents in 1990 marked the second lowest annual total since 1915, when the Game Commission began compiling annual hunting accident reports. The accident rate per 100,000 hunters in 1990 was 10.3.

About 80 percent of the accidents was a result of hunters shooting other hunters, the remaining 20 percent involved self-inflicted injuries. Only one of the mistaken-for-game accident victims was wearing fluorescent orange clothing that was visible to the hunter who shot him.

\$1.5 Million in Fines Collected in 1990

Wildlife conservation officers and their deputies collected \$1,566,399 for Game and Wildlife Code violations in 1990. En route to collecting those fines, officers prosecuted 8368 people and issued warnings to 12,152 others.

J. R. Fagan, bureau of law enforcement director, notes, "The number of prosecutions and amount of money collected for violations in 1990 are similar to those posted in 1989, when 8467 people were arraigned and fines totaled \$1,562,605. In 1989, however, field officers issued a record 17,306 warnings, 5200 more than the 1990 total."

The most common Game and Wildlife Code infraction last year was for spotlighting after 11 p.m. A total of 716 persons were served citations for that violation. It was followed by littering, 461 arrests; failure to wear fluorescent

orange, 427; unlawful taking, possession or transportation of game, 392; operating a motorized vehicle on Game Commission owned or leased land, 372; failure to properly tag big game, 361; having a loaded firearm in or leaning against a vehicle, 352; spotlighting with a firearm in the vehicle, 332; hunting or shooting in a safety zone without permission, 230; driving with a loaded firearm in a vehicle, 230; hunting, killing or attempting to kill game during closed hours, 203; and hunting or taking wildlife with bait, 112.

According to Fagan, several people were also apprehended for assaulting officers or resisting arrest. Two individuals were cited for attempting to cause bodily injury to field officers. In addition, seven were prosecuted for resisting an officer, and six for resisting arrest or interfering with an officer.

Pennsylvania Game Commission

Hunting Accident Report

1990

Casualty

Fatal		
Self-Inflicted	0	
Inflicted by others	8	
Non-Fatal		
Self-Inflicted	22	
Inflicted by others	91	
Total	121	

Light Conditions

	F	NF	T
Dawn	0	3	3
Daylight	7	107	114
Dusk	0	3	3
Dark	1	0	1

Sporting Arm Used

	F	NF	T
Shotgun	1	76	77
Rifle	7	32	39
Revolver	0	2	2
Muzzleloader	0	1	1
Compound Bow	0	1	1
Long Bow	0	1	1

Species

	F	NF	T
Deer			
Regular Season	3	31	34
Muzzleloader	0	1	1
Archery	0	2	2
Turkey			
Spring	1	7	8
Fall	3	35	38
Pheasant	0	8	8
Squirrel	0	9	9
Rabbit	0	15	15
Grouse	0	4	4
Woodchuck	1	1	2

Ages of Persons Inflicting Injury

	F	NF	T
12 to 15 years of age	0	13	13
16 to 20 years of age	0	13	13
21 to 50 years of age	8	61	69
Over 50 years of age	0	12	12
Not Reported	0	14	14

Weather Conditions

	F	NF	T
Clear	8	94	102
Overcast	0	13	13
Rain	0	4	4
Fog	0	2	2

Mistaken For Game—Species Hunted

	F	NF	T
Deer	1	2	3
Turkey	4	30	34
Squirrel	0	1	1
Woodchuck	1	0	1
Grouse	0	1	1

Mistaken for Game Accident Distances

	F	NF	T
26 to 75 feet	0	6	6
76 to 150 feet	2	19	21
151 to 300 feet	3	8	11
Over 300 feet	1	1	2

Cause of Accident

	F	NF	T
Sporting arm dangerous position	1	8	9
Accidental discharge	0	12	12
Ricochet	0	10	10
Stray shot	1	6	7
Line of fire	0	34	34
Slipped and/or fell	0	6	6
Dropped sporting arm	0	3	3
Mistaken for game	6	34	40

Place of Accident

	F	NF	T
Field	2	16	18
Woodland	5	90	95
Marsh or Bog	0	1	1
Road or Highway	1	4	5
Vehicle	0	1	1
Other	0	1	1

Summary of 1990 Hunting Accidents

FATAL	8
NON-FATAL	113
TOTAL	121

NOTE: The 121 total accidents is the second lowest number recorded since recordkeeping began in 1915. The average hunting experience per offender is 16 years. Based on 1,174,000 hunting and furtaker licenses sold in 1990, the accident rate per 100,000 licenses is: fatal—0.68, non-fatal—9.62, total—10.30.

COMMONWEALTH OF PENNSYLVANIA
HUNTING LICENSE APPLICATION

(Certified Check or Money Order in US Currency Required for Mail Orders from Nonresidents)

LICENSE FEES ARE NOT REFUNDABLE		Agent Write In	Agent Write In
Check Type(s) Desired In Block		Stamp Number	Stamp Number
Res. Ad. (17-64 yrs.)	<input type="checkbox"/> \$12.75	Res. Ad. Furtakers	<input type="checkbox"/> \$12.75
Res. Jr. (12-16 yrs.)	<input type="checkbox"/> \$ 5.75	Res. Jr. Furtakers	<input type="checkbox"/> \$ 5.75
Res. Sr. (65 yrs. & older)	<input type="checkbox"/> \$10.75	Res. Sr. Furtakers	<input type="checkbox"/> \$10.75
Nonres. (Hunt)	<input type="checkbox"/> \$80.75	Nonres. Ad. Furtakers	<input type="checkbox"/> \$80.75
Nonres. Jr. (Hunt)	<input type="checkbox"/> \$40.75	Nonres. Jr. Furtakers	<input type="checkbox"/> \$40.75
** Muzzleloader	<input type="checkbox"/> \$ 5.75	** (Cannot be purchased after September 30th)	
Archery	<input type="checkbox"/> \$ 5.75		

7-day Nonresident Small Game (Includes Waterfowl) Valid From _____ To _____ \$15.75

*Resident Disabled War Veterans Claim No. _____ Free ☐ Claim No. _____

ALL MAIL ORDERS — Add \$.80 POSTAGE _____ Furtakers Backtag No. _____
*Available only from County Treasurers TOTAL _____ Hunting Backtag No. _____

PRINT PLAINLY

Name _____
(First) (Middle Initial) (Last) (Occupation)

Legal Residence _____
(Street or R.F.D.)

City _____ State _____
(Zip Code)

Phone No. () _____
(County of Residence) (Area Code) (Official Use, PGC Only)

Age _____ Color _____ Color _____ Weight _____ Height _____
Hair _____ Eyes _____

Date of Birth _____ Sex: ☐ Male ☐ Female

Place of Birth _____
(Post Office) (State) (Nation)

Resident of Pennsylvania since _____
I present the following as evidence that I have completed the required education course or have held a prior hunting or furtaker license: or I am currently serving in the Armed Forces or Coast Guard or have been discharged under honorable conditions within 6 mo. of application

Education Training Certificate or Military Papers _____
Date _____

A prior hunting or furtaker license from _____
(State or Nation) Year _____ License# _____

I am unable to produce a prior hunting or furtaker license, but certify below that I did hold a hunting or furtaker license issued by _____
(State or Nation)

Agents Not Responsible for Licenses lost by Mailing
Mail Application and correct amount of fee (Include \$ 80 postage) to the **PENNSYLVANIA GAME COMMISSION, LICENSE DIVISION, 2001 ELMERTON AVENUE, HARRISBURG, PA. 17110-9797. (DO NOT SEND STAMPS)**. All applicants must present proof of Hunter Education Training or prior hunting license (Preferably a photostatic copy). 7-day Nonresident Small Game License not valid for turkey or big game. Mail orders for Resident Hunting Licenses must include positive proof of residency in this Commonwealth.

CERTIFICATION OF CORRECTNESS

I certify that all of the above information and documents presented are true and correct and that my hunting or trapping privileges are not revoked for this license year

(X) _____ (Date)
(Signature of Applicant plus parent or guardian for persons under age 17)

I hereby certify that applicant has properly identified himself/herself and in my opinion is entitled to license(s) listed.

Signature of Issuing Agent _____
(FORM OF ID USED)

A Squirrel Hunter's Heaven

IF WE COULD CHOOSE our own Heaven, I know what mine would be. And those who know me, those who imagine my visions of a pleasant Hereafter would include being eternally garbed in camouflage and waiting along a deer trail, would be surprised—and wrong.

When I picture the kind of hunting I could do forever and ever, it's squirrels, with a rifle. I can see myself easing down a woodland trail on a late October day, the air just the cool side of gentle, the oaks holding some of their russet leaves. The sun would be at that time of afternoon when the game begins to move and I'd have on my old leather boots and wear-softened small game coat. Though it would be Heaven, I'd have my favorite orange hat, because without it the hunt wouldn't feel right.

But most of all I'd be cradling a scope-sighted 22 in the crook of my arm. There'd be a handful of shells in my right pocket, and the reassuring weight of the first squirrel of the day in the game bag. Since this is Eternity, the day could go on and on, my walk taking me through terrains and seasons that changed as I willed.

I'd walk through mild autumns of brilliant color, and deep winters with hard-glinting snow. I'd trod forever ridges of oak mixed with pine and hickory, and pad silently up hemlock studded hollows, where beech and maple grow. For diversion, the path would sometimes take me to a farm field edge, where grays and fox squirrels came for corn and fat, white oak acorns.

Though it's a Paradise of my own creation, I wouldn't want to hit all the squirrels I shot at, or even squeeze the trigger on every one I saw. That wouldn't be fitting sport. But the woods would be gamey, with plenty of old den trees filled with holes, and grapevines for leaf nests, where squirrels could re-



treat to whine in annoyance at spotting me.

I'm not sure what one does in Heaven with a dead squirrel. I haven't worked that one out yet. But maybe this is squirrel Heaven, too. Though it's immortal, there are just enough hunters and hawks around to keep a squirrel's senses sharp in the afterlife. After a momentary discomfort, it picks itself up and goes on.

For most gunners, squirrel hunting doesn't have enough glamour to be an eternal reward. That's why I like it: My Heaven won't be crowded. The squirrel woods I hunt in this life aren't packed with other hunters either, which is one

Another View...

by Linda Steiner

of the reasons I'm partial to the sport. And so I do it now, while I'm assured of the chance, rather than wait for an uncertain later.

Because squirrels lack trophy quality, having neither impressive antlers nor long beards, the competitive types haven't tainted the sport. Squirrel hunting is not a status pursuit. In fact, bushytail enthusiasts lack "class" in the eyes of some folks.

Since I'm "beneath" notice, this gives me freedom in the practice of my sport. I'm not deluged with "how-to's" and "where-to's" by erstwhile experts. Squirrels are not on the cover of every sporting magazine. No one puts out a "Squirrel Hunting Special" crammed with slick ads. There's no pressure of doing it "right" or "wrong." I just do it.

Squirrel hunting is relaxed, laid back. Though deer hunting forever may seem attractive, it's too serious. Have you ever heard hunters question each other with, "Did you get your squirrel yet?" Yet every deer season, getting "your" deer is the nagging inquiry. I don't need an eternity of that.

Traveling light is another advantage of squirrel hunting. I speak as a tired participant of the "weightier" sports. I've carried all the accoutrements of modern archery—tree stands, safety belts, compound bows and quivers full of arrows. Then there are the calls, scents and rattling horns, without which even a quick jaunt in the woods isn't complete.

It's nearly as complicated for gun hunters out for deer because they've to bear the burden of the weather—cumbersome coats, mittens, hoods, boots, hand warmers and hotseats. A hunter also lugs a heavy rifle and his extra shells drag at his side pockets. Give me, instead, my little squirrel rifle and a handful of 22s, and I can breeze up and down the hills all day, carefree, a Huck Finn of the woods. I need little else.

In squirrel hunting, success is all fun. In deer hunting, once the game is down, the strenuous work begins. First there's the chore of field dressing and all the attendant unpleasanties this

necessary job entails. Then there's the hard work of getting yourself, your (now unneeded) coat, your rifle, hotseat, backpack, thermos, heart and liver bag, and the large dead weight of the deer all the way back to the car.

With a squirrel, the cleaning and skinning are quick and slick. The small weight in the back of the coat is born joyfully because it says that, yes, you are a good hunter.

Getting a shot isn't the desperate thing in squirrel hunting that it is in deer hunting, when a single missed opportunity can be a season gone. That's why deer hunting takes such constant vigilance, whether sitting rocklike on stand or still-hunting in intense slow-motion. A wrong move can mean the one buck of the year that could have been yours has seen you, smelled you, or heard you, and is gone.

But in squirrel hunting, it's not life or death. If I don't get the shot here, if I decide I'd rather get up and walk, or stay and sit, it doesn't matter. There'll be more squirrels down the trail.

Squirrel hunting at its best is a happy blend of being in the woods for hunting, and being in the woods just to be there. I see the forest with a hunter's eyes, with purpose and discernment, and interpret everything as it applies to the game I seek. But at the same time, I have the leisure that usually comes only with just going for a hike.

I can turn my attention to a chickadee, or to turkey scratchings in the leaves, or wonder about where the buck that made the rub was going. When I'm squirrel hunting, I don't have to be as single-minded as when I'm after more "serious" game. I don't feel I'm letting someone down by allowing myself to be distracted.

I doubt it's up to me to decide how I spend Forever, if there is one after all. But hunters can't help imagining what would be, for each of us, the perfect day afield, one that could go on and on and we would never be tired or bored. I may not have an eternity to squirrel hunt, but of this I'm certain: I'm going to get all of it I can in this lifetime.

AH, FINALLY! After many an endless winter night waiting, it's here! Spring has arrived; the sun flooding the land with brilliance and warmth. A time of year that kindles man's spirit and restores his exuberance for life.

Nature, too, shares in man's inspiration with the season's fresh start. She once again responds to the increase in daylight, temperature and radiance by sending forth life in abundance. Mother Nature is being reborn.

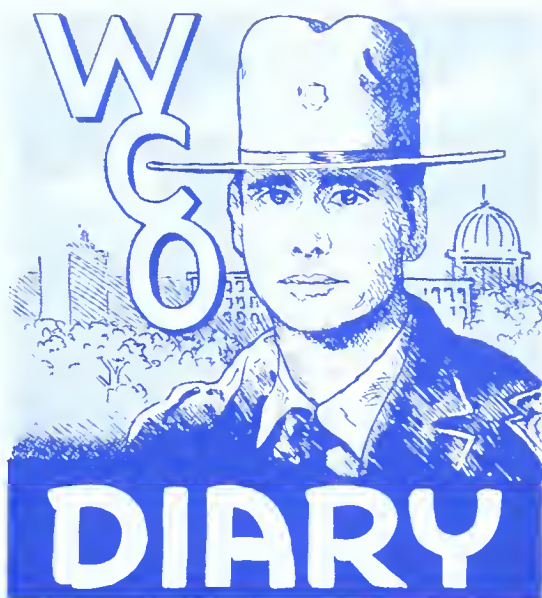
Wildflowers spring up to grace the fields and forest. Insect activities hum a beginning, reminding us of their long absence. Birds fill the air with melodies as warblers and other songsters take center stage for their performances. Prominent courtship displays and rituals gradually give way to the subsequent task of nurturing newborns. Plant life sprouts in every nook and cranny that has sufficient amounts of earth. By month's end, trees are in full costume with their new green attire.

The month of May provides for a continued variety of activities here. Information and education duties, together with ever-present law enforcement responsibilities, fill my schedule.

A new dimension in my activities emerges as wildlife's renewed vitality and abundance creates nuisance problems for some folks. A few unusual occurrences are thrown in to add variety.

MAY 1—After quickly finishing my office work, I present another program at an area sportsmen's club. I'm continuing to foster a rapport with the hunting community here. WCOs recognize the need for input by concerned sportsmen and try to cultivate their interests in wildlife. I also try to instill the need to become involved with law enforcement duties. Information received from witnesses is the foundation upon which many cases are based. Participation by concerned individuals in the agency's SPORT program has been and will continue to be most valuable.

Just as I'm leaving the program, I'm dispatched to assist Lebanon County deputies with an unusual situation. I'm told a young buck has been boldly approaching area residents. The deer's been acting oddly all evening and now well into the night. Concerns for the residents' safety, not to mention the nuisance the critter is causing, bring me to the scene.



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

Sure enough, I find the deer parading about backyards as if he owned them. Deputy Dale Zimmerman briefs me on the situation. We aren't certain if the deer has been knocked senseless, playing bumpercars in traffic, or if there may be another reason for its unusual behavior. Perhaps his lack of fear is related to being kept in captivity, we wonder.

On occasion, people will find what they think is an orphaned fawn and take it home to "raise" the animal—an activity prohibited by law. The novelty fades, though, and then the animal is released.

Rather than destroy what appears to be a healthy animal, we decide to try to tranquilize it. Cautiously approaching the young buck, I'm able to stick it with my jab-stick. The animal goes down quickly and is then taken to a licensed rehabilitator for further monitoring. If the animal is healthy, it will remain in captivity with a licensed propagator. Returning it to the wild would further jeopardize its well-being. A sad ending for a wild creature.

MAY 2—Beginning today, I'm scheduled for a few days off. Taking advantage of the bright sunshine, I grab my flyrod and gear and head over to Clark's Creek and SGL 211. Flyfishing for trout is one of my favorite spring pastimes and I welcome the chance to relax.

While slowly meandering upstream through the Fish Commission's special



Question

I found a dead screech owl lying along the highway. May I take the owl to a taxidermist and have it mounted?

Answer

No. All migratory birds are protected by both state and federal laws, and possession of these birds is restricted to scientific and educational institutions that have secured the necessary permits.

regulation flyfishing area, I'm enjoying a fine day. Caddis flies hatching, trout dimpling the surface, and my feathered imitations daintily riding the currents all serve to melt my cares away. Suddenly, as I round the bend, all is not right. There before me are three fellows with spinning rods, plugs, and worms, all prohibited on this stretch of stream. So much for my day off.

While not being our primary focus, WCOs have authority to enforce commonwealth fish laws. As an avid angler, I'm eager to exercise my authority.

"Having any luck?" I inquire.

"Naw, nuthin'," one fellow responds.

"Spinning gear isn't allowed in this area, is it?" I ask.

"So what! And who's askin' anyway?" came a reply.

As I reach into my pocket and display my badge, the trio realizes their error. I gather their gear and check licenses. Seems one fellow "forgot" to bring his along. Another pleads ignorance to the whole situation as he stands beside a prominent Fish Commission poster that sets forth the rules and regulations of the area.

The fellows seem bent on giving me a rough time, and later I learn why. When I turn over the gear to Waterways Conservation Officer Barry Mechling, he informs me that this is the third time this trout

season that these fellows have been caught fishing with unlawful gear in fly-fishing only areas. Some people are just slow learners, I guess.

MAY 8—A nucleus of officers from around the state serves the Commission as unarmed self-defense instructors. These officers were selected because of having interests or skills in the art of self-defense. They receive intensive training in various methods currently employed by the law enforcement community. In turn, they train fellow WCOs and deputies throughout the state.

Beginning today, and for the next several days, I join my fellow officers who serve as instructors. We gather at our training facility located in the Commission's Harrisburg headquarters. We are to receive training and certification in the use of pressure point control tactics.

The theme of the course involves controlling a would-be assailant by disrupting certain key nerve centers in the attacker's body. The techniques are widely employed in law enforcement circles as a means of controlling an attacker without causing serious injury.

We each have an opportunity to be on the receiving end of the various techniques. The course added new meaning to the term "charley horse," and we certainly gain an appreciation of this effective self-defense method.

MAY 11—Because neighboring officer Scott Bills and I were required to attend the unarmed self-defense training, we missed our county's envirothon competition. In our absence, Deputies Steve Bernardi and Bob Landon administered the wildlife portion of the competition. I met with Bob this morning to review the test and find which school won. I was pleased to hear that a team from our district, the Lower Dauphin Area entry, had emerged as the victor.

Later, after disposing of a couple of roadkilled deer, I begin an investigation of a violation that had occurred during my absence earlier in the week. Harrisburg city police informed me of a complaint they had handled involving two fellows shooting at some mallards at Italian Lake.

The lake is a small city park near the shore of the Susquehanna River. Waterfowl frequent the area as a convenient resting place. While the two were shooting at the ducks with what were reported

to be rifles, a local resident approached them and asked them to stop.

The police became involved because the two suspects allegedly turned their attentions and the firearms from the ducks and pointed them toward the oncoming resident. They supposedly threatened him if he continued. I needed to clear up some details about the incident before I contacted the suspects.

As the day came to a close, I was baraged with reports of a bear or bears in suburban Harrisburg. My earlier forecast of bruin troubles in the district is beginning to take shape. I can only hope the bears would pass through and cause minimal problems in their wake. I keep my fingers crossed.

MAY 14—Morning finds me conducting a hearing in the office of a Harrisburg area district justice. The defendant was charged with purchasing a license while

under revocation. He was apprehended several years ago for his participation in the jacklighting of a deer in Fishing Creek Valley. As part of his penalty, the man lost the privilege to purchase a license for a three-year period.

Most recently, he was involved in a baiting violation and, upon checking his license, I saw it was purchased several months prior to the end of his revocation period. Seems as though some folks have a penchant for trouble, and this guy is one of them.

In his defense, the fellow offered that he lost or misplaced his revocation notice and simply forgot when his revocation period was to end. Moreover, he felt the penalty for this offense was too severe, as it would mandate the further extension of his loss of hunting privileges. The district justice found the defendant not guilty because the justice agreed the fine and penalty would be unjust in this case.

***GAME*cooking Tips**

A HEARTY HUNTER'S BREAKFAST

When I was a little girl and waiting to move into our new house, my family and I lived in the Benton Hotel for several weeks. That grand hotel is gone now, but it was the most imposing structure in Benton, the quiet village in the Endless Mountains of Columbia County where I grew up. The country was strange enough to me, but stranger still was the yeasty, pungent odor about the dining room and kitchen each evening. The smell of buckwheat cakes rising permeated that old hotel, and I soon came to love them. They are different, strong-tasting and very satisfying.

Benton Buckwheat Cakes

- 1 cup lukewarm water
- ½ cup stirred buckwheat flour
- ½ cup sifted white flour
- 1 cup starter*
- 2 tablespoons brown sugar
- 2 teaspoons pure maple syrup
- ½ teaspoon baking soda
- ½ teaspoon salt
- 1 tablespoon vegetable oil

Add water, buckwheat flour, and white flour to one cup of starter. Stir until smooth, let stand overnight, at room temperature. When ready to bake buckwheat cakes, add brown sugar, maple syrup, soda and salt. Blend until combined. Add oil. Cook on a hot griddle. Serves 4

***Buckwheat Starter**

- 1 tablespoon dry yeast
- 2 cups warm potato water
- 2 cups buckwheat flour

Combine all ingredients in a glass or pottery container. Cover with paper towel or cloth and let stand at room temperature for 48 hours. Stir down several times. Starter is ready when it smells "yeasty" and blows bubbles on the surface. Replenish with equal amounts of flour and water after each use. Store in refrigerator and allow to come to room temperature before using.

—FROM WILD GAME COOKERY
REVISED AND EXPANDED EDITION
BY CAROL VANCE WARY

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; North-east, 1-800-228-0789; and South-east, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

Certainly, losing a case is not welcomed by an officer, but we can expect such occurrences and must accept the court's decisions. The system may not be perfect, but it has proven effective.

Later, I resume patrol duties and enjoy some foot patrol on SGL 211 in Middle Paxton Township. I know of no other profession that offers conditions so refreshing as a walk through the woods on a beautiful spring afternoon. I savor the sun's warmth as I remember patrols carried out on rain-soaked or blustery winter days.

During the evening, I'm a guest at the Hummelstown Field and Stream Club's regular monthly meeting. Yet another opportunity to meet a facet of the public that has a vested interest in our wildlife resources.

MAY 17—Many of my days begin with the completion of the forms, reports and papers that have a nasty habit of following me everywhere I go. Happy to finish the last of these pesky paper tasks, I head out to begin my evening duties.

Before I have a chance to organize my thoughts, I'm dispatched to an incident on SGL 246 outside of Middletown. A 4-wheel-drive has been seen driving across some fields and on a road closed to vehicular traffic.

Knowing it will take me about 25 minutes to get there, I have the dispatcher contact Deputy Frank Kolaric. While having my doubts that either of us can respond in time, I'm pleasantly surprised when I arrive. Luck is on our side, as the

offenders' truck got bogged down axle-deep in a quagmire. Frank is already on the scene and chatting with the hapless fellow.

We quickly determine that the guy was simply "joy riding" and figured he wouldn't be caught. He's probably right, except for that well-placed mud hole. The fellow settles on a field receipt.

Frank and I continue our search for the individuals involved in the duck shooting incident at Italian Lake. After we finally locate them, I explain the offenses involved and prepare the necessary citations. The one defendant decides that he will pay for both his and the codefendant's offenses on the spot.

The evening concludes with this month's deputy training meeting. We again gather at the commission's Harrisburg headquarters to discuss and critique our law enforcement efforts throughout the district.

MAY 19—A change of pace is in order, and I shift my attention to assisting the Fish Commission by patrolling Clark's Creek and SGL 211. This is an absolute gem of a trout stream, with crystal clear pools and sandy bottoms reminiscent of fabled northwoods waters. Everyone checked is in compliance, so I alter my approach and continue my patrol efforts, this time by boat on the Susquehanna River. While most Fish Commission law enforcement efforts concentrate on trout fishermen at this time of year, I upset that logic and find several folks fishing for other species, but without licenses or ignoring boat code violations.

Continued cooperation between the Fish Commission and Game Commission serves both agencies well, and officers throughout the state aid one another when needed. I look forward to help from my Fish Commission counterparts later in the year, when major hunting seasons are in full swing.

MAY 23—Another shift of gears places me in my role as a teacher when I conduct a day-long series of outdoor learning workshops. I'm privileged to have the students of the Feeser Middle School in Middletown as my class at the Middletown reservoir natural area.

Throughout the day we share in various learning exercises adapted from Project WILD learning activities. During the day students rotate among various stations,

from aquatic studies and fishing to my programs focusing on wildlife and habitat. Another rewarding day in this most unusual career.

MAY 24—The law mandates that all first-time hunters, regardless of age, attend and successfully complete a certified hunter-trapper education course. In order for the agency to fulfill that mandate, we solicit and train a corps of dedicated volunteer hunter-ed instructors to assist with or, in many cases, conduct these courses.

I'm fortunate to have 38 instructors, who teach the dozen or more courses we offer every year here. The 600 to 700 students from this district are the beneficiaries of expertise provided by these dedicated volunteer instructors.

Tonight finds me conducting a dinner meeting in recognition of my staff of instructors, together with those of neighboring officer Scott Bills. We gather for a scrumptious steak dinner at the Harrisburg Hunters and Anglers clubhouse prior to beginning the evening's training agenda.

I have targeted this meeting to introduce a progressive training method to our group. I've set up a sample outdoor training course that can be adapted to each of their regular hunter-ed courses. The outdoor field course is designed to provide hands-on experience to students as a learning tool. It places students in various situations and scenarios to test their knowledge of concepts introduced to them during classroom instruction.

Information and Education Supervisor Mike Schmit of the Reading office, WCO Bills and Deputy Larry Mummert, who serves as my hunter-trapper education program coordinator, round out the evening's agenda.

MAY 29—Officers around the state are plagued this time of year by complaints concerning nuisance wildlife. From bears in garbage cans and beavers flooding roads, to squirrels in attics and raccoons in chimneys, the problems run the gamut of anything imaginable. I'm quite fortunate to have several licensed wildlife pest control agents in my district, to relieve me of these time-consuming chores. Today was a notable exception.

A woman in Susquehanna Township called my regional office to complain of a harassing turkey. "A harassing turkey?" I ask. The complainant seems to be bothered by a large strutting bird flying into and pecking at her patio door windows. Repeatedly she has tried to chase the bird away, but to no avail. Such behavior would be most unusual for a truly wild bird, particularly in the suburban area where she lives.

Upon arrival, I meet with the woman and she describes the entire incident. Then she shows me where the bird has been causing the disturbance. When I ask where the bird may be, she looks at her watch and says it should arrive at any moment.

Hmmm, the persistent rascal must be punctual, I think to myself. By golly, just like clockwork the bird appears, and in the exact fashion she had described. Strutting up to her back door, he begins pecking on her glass. He's a regal looking fellow with his tail fully fanned and head held high. One problem, however; the bird that she and her family believed to be a turkey is, in fact, a rather large peacock.

I quickly think of a tactful way of pointing out the error in her identification and how I can beg out of this problem. I explain that I'd be happy to remove the bird, but that it in all likelihood belongs to a neighbor. If I took her nuisance away, it could cause quite a fuss in the neighborhood. Too, I had no idea what I'd do with the peacock. She agrees, so I excuse myself and wish everyone a good day. Later, I can't help but be the target for some turkey-peacock jokes launched at me by the radio dispatchers in Reading.

MAY 31—A more normal routine finds me in Londonderry Township responding to a nuisance goose complaint (this time it's the real thing), and then in Hummelstown to serve an arrest warrant. A resident there had lapsed on his fine payments for a jacklighting violation. Later, I resume my patrol duties on SGL 211 and round out the day by responding to a possible rabies incident involving a sick raccoon in a southside city apartment in Harrisburg.

While this month is typical of a WCO's activities, next month offers some curves I'm sure you'll find most interesting.

Thornapples



Chuck Fergus

I LIKE SHOTGUNS. Double-barreled shotguns. Side-by-side double-barreled shotguns. When I think “shotgun,” this is the sort of firearm that immediately comes to mind. I have nothing against over-unders. (Or under-and-overs, as the British, in their seemingly contrary way, like to call them.) Pumps and automatics are a little too mechanical looking for my taste, although I shoot them well enough and recognize that they are efficient, useful hunting tools.

Something About ‘Em

But there’s something about a side-by-side. The wide horizontal plane presented by the paired barrels gives the eye a lot to fix on, subconsciously, while following a flying bird. All the old American doubles—Foxes and Ithacas and Parkers and the rest, well-made, handsome sporting arms of the early part of this century—are side-by-sides.

The double-barrel set-up, whether over-under or side-by-side, is an inherently safe design. When you break open the barrels you can see through them and thus be sure there are no obstructions in the tubes. A pump or an automatic provides no such easy access to the working innards.

I remember one time losing my shells; they apparently fell out of a hole in my shooting vest. I bummed some handloads from the fellow I was hunt-

ing with. On my very next shot, using one of the borrowed shells, instead of a loud *blam* there was a tentative *pop*, and I heard the shot spatter harmlessly in the brush.

Whistling the dog off the woodcock, and concentrating on the bird to try to mark it for a reflush, I loaded, took a few steps, and then caught myself. I broke the gun back open. Lodged about halfway down the right barrel was the plastic wad from the dud shell.

If I hadn’t taken the time to check—which I probably would not have done, in the heat of the hunt, had I been using an auto or a pump—my next shot would have sent a column of pellets down that obstructed tube, blowing up my shotgun and, perhaps, my left hand along with it.

I own a brace of side-by-sides: two Ithaca SKB Model 280s, one in 12-gauge and the other in 20-gauge. Let me describe a day when I was glad to have the pair.

Dawn found me kneeling on a beaver dam as light spread slowly across the sky. My springer spaniel, Jenny, fidgeted at my side. A heron flew past, its wings making a steady whooshing that seemed loud in the quiet marsh.

Other wings whistled, then came a *splash* as a duck set down behind the curve of the dam. I stood. A male wood duck flashed from the water, and the broad plane of the 12-gauge barrels overtook him: The right barrel crashed, and he went spinning down. I sent Jenny, and she swam after him, caught him against the dam, and fetched him back. Later that morning a pair of woodies dropped in on the pond, and again I stood to raise them, the steel 6s taking the drake at a good 35 yards.

Back home at noon I hung the woodies in the shed, wiped down the 12, and put it away. I exchanged hip boots for Bean boots, and it was the sleeker, shorter 20-gauge that accompanied me to the valley, where brilliant leaves fell from the orange-and-yellow canopy and thornapples hung like red Christmas ornaments in the thick riotous shrubs.

In a crabapple tangle, Jenny took scent. I fought my way toward an opening. The grouse flushed, the quicksilver 20 swung and laid him low. Jenny pinned the fluttering form, took it up in her mouth, and came padding back.

In the upland cover, the longer 12-gauge might have snagged on a branch and the grouse gone on its merry way; in the marsh, the 20 might have stayed mute as the wood ducks got up at marginally long ranges. But in each contrasting hunting situation, I shot effectively: Handling the two straight-stocked side-by-sides, it almost seemed I was shooting the same gun.

When I got my 20-gauge back in 1974, it was the latest addition to a line of double-barreled shotguns made by the SKB company in Japan and marketed in the United States by Ithaca. To my eye, the 280—with its short side-by-side barrels and straight English-style stock—was far and away the prettiest of the lot. The gun came with decent wood and checkering, tasteful (if somewhat Oriental-looking) engraving, and several nice touches: a brass oval let into the belly of the stock, a brass trigger, and a brass accent ring around the front screw on the beavertail fore-end.

Hunting, I found that the 20-gauge lifted quickly and easily to the shoulder. I killed doves, woodcock, grouse, pheasants and rabbits with it, and never had a malfunction or a breakdown.

When my wife said she wanted to try grouse hunting, it seemed natural that she use the 20-gauge. The gun is light (an ounce under six pounds) and fits her well. If she was to use the 20, though, I would need a gun for myself.

I thought it should be a 12-gauge, since I was then wanting to hunt ducks and needed a gauge that could deliver a heavier charge. It seemed logical to get a gun that matched, as closely as possible, the 20-gauge to which I was accustomed.

That was in 1986. SKB and Ithaca had long since parted ways, so I couldn't just go and buy a Model 280 12-gauge right off the rack. I thought I might have to spend a while looking:

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gun shows, sporting goods stores, through-the-mail lists. But scarcely a month had passed when I learned through a friend that Shuman's had a nice 280.

Mint Condition Guns

If you like fine shotguns, go to Shuman's Gun Shop. It's in a remodeled farm building on the outskirts of Newville in western Cumberland County. A friend once visited Shuman's on my recommendation and reported that his palms grew moist and his heart began pounding as his eyes scanned the racks: Foxes, Parkers, Winchester Model 21s, Ithacas, L. C. Smiths, dozens of fine old American doubles, most of them in mint condition.

When I went to check on the SKB, Byron Sterling was behind the counter. In his middle years, loquacious and friendly, Byron is the most knowledge-



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able person I know where fine shotguns and rifles (Shuman's does a brisk business in vintage Winchester Model 70s) are concerned.

Byron handed me the SKB and faded into the background while I inspected the gun. Bores: like tubed mirrors. Stock: one faint scratch (I knew I would add a dozen in one season in my rough-and-tumble coverts). Wood: beautifully figured walnut (more about the wood later). Blueing: 100 percent. Engraving: decent, but less of it than on my 20-gauge.

Quite Handsome

The SKB didn't moisten my palms or speed up my heart the way a skeet grade Model 21 might, but for a decent utilitarian gun it was quite handsome. Thicker through the wrist than the little 20, heavier and chunkier throughout, but then that was to be expected. I figured the greater weight (six pounds, 11 ounces) and barrel length (at 26 inches, an inch longer than the 20's) would keep me swinging on fleet woodies and teal. Choking was the same as in my 20-gauge, improved cylinder and modified.

Gently I upended the gun on the

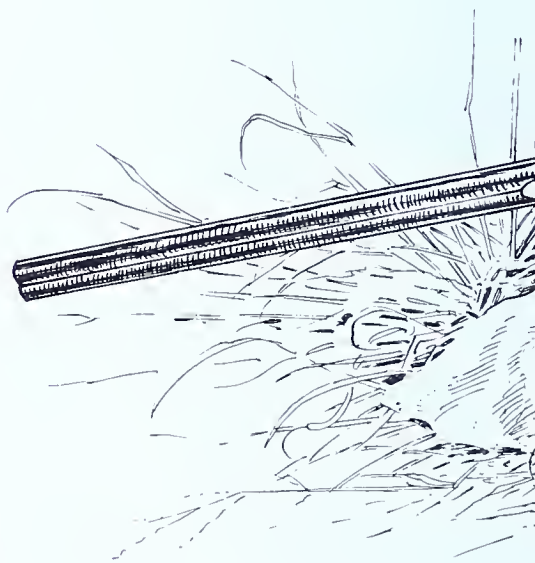
counter, so that it lay flat on top of its barrels, and measured the drop in the stock: 1½ inches at the comb (same as my 20-gauge), but 2¾ inches at the heel, a quarter-inch more than the 20's stock. They wouldn't be a perfectly matched brace, but they'd be close.

Byron explained that the lesser engraving reflected the more recent manufacture of the 12-gauge, noting that this inconsistency was part of the problem leading to the two companies' divorce. It seems that SKB, to cut production costs, began toning down the engraving and other cosmetic niceties, not realizing that American buyers would interpret the plainer guns as "new" models, thus shunning the older (and, ironically, dressier) guns, leaving them to gather dust on dealers' racks.

After buying the 12 I immediately took it to my gunsmith friend Jeff Swabb, who pronounced it in excellent shape. Over the years, Jeff has worked on 20 to 30 SKBs and found them straightforward, reliable guns. I had him shorten the stock slightly, to a length of pull identical to my 20.

I was curious about the apparently dressy wood: Smoky black lines run lengthwise on the buttstock, and something about them looks a little fishy.

I sanded the piece of wood Jeff had



removed, and, sure enough, the smoky lines disappeared. The wood is quite plain and light-colored. Apparently SKB used a stain for the dark field, then squiggled on an even darker stain for the smoky pattern. I'll put off refinishing these guns as long as possible, maybe even have them restocked when and if the need arises.

The first time I took the 12 afield, I killed three rabbits and a grouse with my first four shots (then proceeded to miss three more grouse). Last season I swapped back and forth between the two guns freely. There was that day when the brace of woodies was followed by a grouse; and, weeks later, a frigid morning when I dropped a black duck over decoys with the 12 and topped off the day by taking two ruffed grouse with the 20.

I can't say the two guns feel precisely the same. The 12 has a meatier fore-end, a slower lift but a steadier swing. The 20, on the other hand, leaps to the shoulder in a way the heavier 12 can't. I view these two smoothbores as working guns: I run steel shot through both and regularly take them afield in snow and rain, into the thorniest, muckiest coverts.

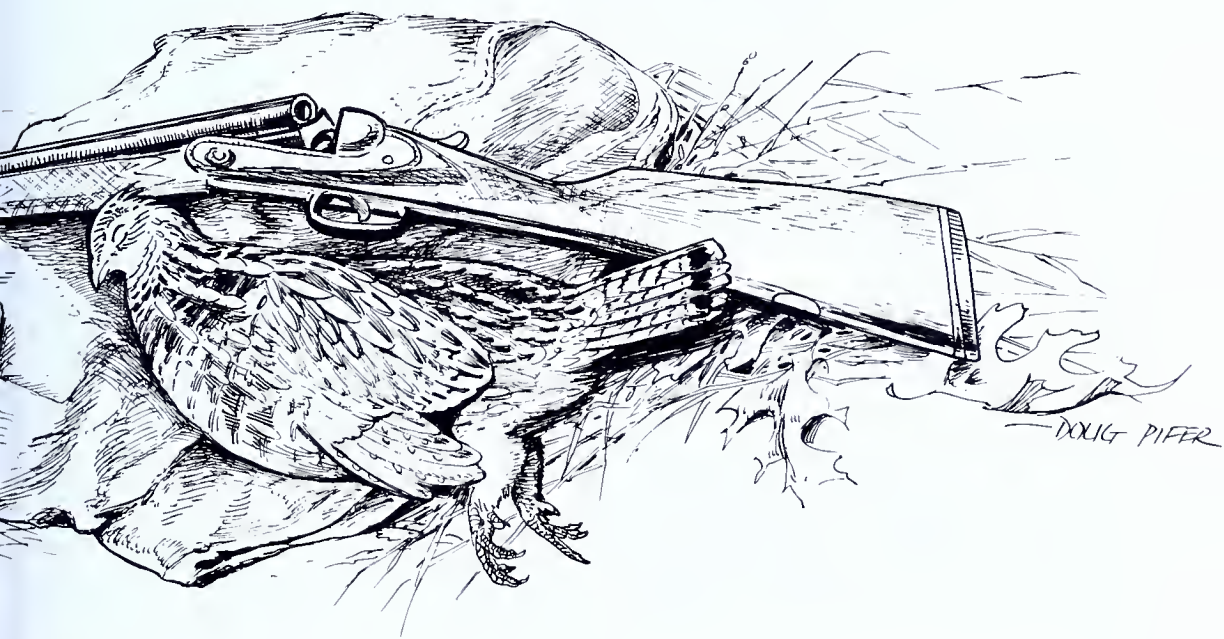
I would not hesitate to recommend that the avid wingshooter get a pair of

The *Wingless Crow* is a collection of 33 "Thornapples" columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

used, decent-quality matching shotguns. The Browning Citori, Ruger Red Label, Charles Daly, Winchester 101, and the various models of Ithaca SKBs (including the 100, 200, 500 and 600, as well as the 280) would all be candidates. The price—from \$500 to \$800 per gun—would not be prohibitive for most of today's shooting enthusiasts.

All My Needs

The brace covers all my shotgunning needs. The paired SKBs are good but not great guns, and provide a tantalizing gap: I really could use a 16-gauge, let us say a svelte Model 21 (they built them on the 20-gauge frame) or a CE Fox (I dearly love the woodcock engraved on the sides). But until I can walk into Shuman's and plunk down the several grand required for such a classic, my SKBs will do the job.



Fun Games

“DON’T FOWL UP!”

By Connie Mertz

N B U F F L E H E A D K U C D
O L L Q U M K R L R W E G K S
R U C A W O C W O E O S S C H
T E G U C E U R A D O E P U O
H W O O D K D A V H D E T D V
E I L L A W D A G E C G W D E
R N D S H H O U G A O A A E L
N G E O D D O I C D C D U K L
P E N N S I W I N K K A Q C E
I D E Q U P M E R G A N S E R
N T Y H A I R E Y Y E A D N S
T E E S P R I E N G D C L G S
A A W I G E O N Y O U D O N T
I L K C A B S A V N A C U I Q
L A E T D E G N I W N E E R G

Find the following waterfowl in the wordfind above.

Black Duck
Green-winged Teal
Wood Duck
Gadwall
Northern Pintail
Blue-Winged Teal
Wigeon
Old Squaw
Canada Geese

Ring-necked Duck
Bufflehead
Ruddy
Merganser
Goldeneye
Canvasback
Redhead
Shovellers

Bonus: Can you find two other hidden birds that aren’t classed waterfowl?

Answers on page 64



SOME ARCHERS have discovered that having their shooting recorded on video is an excellent way to discover faults in style or release. With today's technology, the results of a practice session can be reviewed in minutes, and problems can be addressed right away.

Today's videotape equipment permits . . .

Parlor Practice

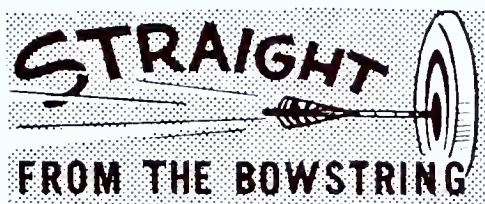
By Keith C. Schuyler

WHEN TELEVISION first appeared, there were predictions that newspapers and magazines would be replaced by this new medium. They weren't. Although outdoor television programs are interesting and informative—if you're able to catch them on weekend mornings or remember to tape them for later, these capsulated vignettes provide little more than a parlor substitute for actually being afield.

The advent of personal video cameras allowed better amateur tape reproduction than did home movie cameras, and substantially reduced cost after the

initial investment. While video cameras have limitations, they do have the advantage of immediate replay.

For archers who have developed problems with their shooting techniques, a videotape of practice sessions may reveal correctable faults in form or



release that can be addressed within minutes of taping.

Memories of a hunting experience can be reinforced by recorded video reproduction of the action, or a simulated replay of what transpired. A while back I made an 8mm movie of a now deceased son's first deer kill. The end result was long on sentiment and short on camera expertise. A video camera, then unknown, might have provided a much better record of the event.

Limited Applications

Although my video camera has provided intimate scenes of wildlife, particularly some close-up shots and sounds of beavers building a dam, it has limitations for bowhunting. It is possible to make action tapes after the fact, but lugging a fairly heavy camera along in the woods while actually hunting is impractical.

Even though you might feel well-equipped with a camera that set you back well over \$1,000, some of the pro-

fessional videos you see are made with equipment in the \$40,000 class. Also, many well-produced videos involve the use of two cameras.

Although you may shoot videotapes adequate for home enjoyment, generally speaking it takes both professional equipment and expertise to produce shows worthy of public viewing. In the ideal setup, the camera operator(s) should be along for no other purpose than to take video pictures.

There are some commercially distributed videotapes that demean hunters and hunting. No thought is given to the adverse effects of scenes that would at best be relegated to hunting camps or cellars with limited seating and a private audience. Blood and gore are sometimes purportedly portrayed as an important part of the story or more often for shock or selling value. Seen by the uninitiated, such grossly exaggerated scenes can turn off the intended audience or provide ammunition for those looking for an excuse to attack all hunting.

The audio portion of a tape is nearly as important as the visual component. Appropriate background music, properly faded, and voices, whether narrative or part of the action, can add to or detract from the finished product. Stilted expressions like "It's a dandy," repeated time and again to fill in silence or because of limited vocabulary, leave little for the imagination. They can disrupt or intrude into the viewer's thoughts.

The most valuable video cassettes are those providing instruction as well as entertainment. These get special shelf space because they will be watched over and over. They teach a practical message to the viewer—how to do something new or improve on a familiar process.

Those designed specifically to entertain, through interest and action, may be more popular at rental outlets and

FOR HUNTERS who wish to record their hunts, it's best to have the camera operator—or operators—along for the sole purpose of taking video pictures.



exchange among friends. Because hunting with the bow is an intimate activity, with generally close action, excitement is easily conveyed by the approach of animals and the anticipation of a kill.

Viewing a videotape requires, of course, a video cassette recorder (VCR) hooked up to a television set. Having a pencil and notebook handy is a good idea when watching instructional videos. Through the use of the rewind, fast-forward and pause controls on the VCR, you can work your way through an instructive series one step at a time, reviewing salient points and skipping material irrelevant to your situation.

Those who attempt to put a show together with their own home video cameras gain a new appreciation for some of the professionally produced videos on the market. It's amazing to see what can be done with some of the relatively low-priced cameras; it can be disappointing to discover the mechanical and personal limitations inherent in attempting to duplicate what you see on commercial videotapes and television outdoor shows.

Your show may cost you no more than the value of time expended and the price of a few blank tapes. Commercial offerings may have production costs from a few thousand dollars to tens of thousands. Cost reflects the price of professionalism in type of cameras, tapes, camera operators, human subjects and all the small but costly items involved in taping an archery show or commercial cassette.

Suggested Viewing

The following full color tapes might be of interest to archers. Each falls into a category I consider acceptable for any audience of bowhunters or those not prejudiced against the sport.

One of the most revealing, and shortest, tapes is "The Effectiveness of the Modern Broadhead," a 10-minute video made by Quest Production Group, Inc., for World Bowhunting Association. In addition to explaining and illustrating how and why a hunting arrow is lethal, the film shows quick, humane kills on such big game animals as black bear, deer and feral pigs.

VIDEO BRINGS ARCHERY entertainment or instruction into your living room, but it's still no substitute for the real thing. While some companies use video as a public relations vehicle, there are a number of fine bowhunting tapes that the archer will find worthwhile.



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Pennsylvania's Bob Kirschner is featured in a film that shows him and three other expert archers in action during sequences of "Bowhunting Backyard Bucks." This one is designed to illustrate the fact that trophy white-tailed bucks can be found and legally taken in proximity to homes and industry. Each of the deer shot is a fine specimen and is dropped on the spot or recovered within easy trailing distance. The hunting action sequences are repeated in slow motion from two camera angles.

Woodlot Whitetails

Quest's "Bowhunting Woodlot Whitetails," is another tape of actual hunting scenes, and trophy bucks are taken in view of two cameras. Jim Barnhart, technical writer for *Bowhunter* magazine, is featured. Commentary is provided by Dr. David Samuels, former president of the National Bowhunter Education Foundation.

Another Quest tape, especially of interest this time of year, focuses on hunting the most wary of wild turkeys, the Eastern subspecies. Titled "Bowhunting Spring Gobblers," the video is long on instruction and is interspersed with actual bowhunting kills—and misses—of gobblers.

For more information on these and other Quest tapes, write K. B. Marketing, Box 270245, Oklahoma City, OK 73137-0245.

Another informative and entertaining video made specifically for archery enthusiasts is "The Truth About Calling and Bowhunting Whitetails" by Primos Wild Game Calls. Like other "Truth" videos by the call manufacturer, this top quality 85-minute program was shot in the wild, entirely unstaged. For more information write Primos Wild Game

Calls, Inc., P.O. Box 12785, Jackson, MS 39236-2785.

Although most tapes last an hour or so, a two hour, 15 minute safari video is available in Tink Nathan's, "Bowhunting Elephant and Cape Buffalo in East Africa." While it's of limited practical interest for the average Pennsylvania bowhunter, it is nonetheless an entertaining program. Scenes include a charge by an enraged hippopotamus, a brush with poachers, and Nathan's bow kill of two Cape buffalo and an elephant. For more on this one, contact Safariland Archery Corp., Box 579, McLean, VA 22101.

In a more commercial approach, "Hunting With Good Scents" is a promotional video from Robbins Scent, Inc., P.O. Box 779, Connelville, PA 15425. Bill Bynum of Tennessee explores and explains the use of scents to camouflage the natural odor of the hunter and to provide an edge in positioning deer, through use of animal scents, within bow shooting distance.

For do-it-yourselfers, "Bringing Arrow Building Home" is a practical and well-presented video by Bohning. Instruction is provided by John Kleman, winner of seven state championships and three-time national champion. Kleman takes the viewer through each step in an easily understood approach to both crestring and fletching arrows. The fact that Bohning provides kits for each process doesn't detract from the value of this practical tape. It teaches the savings and pride involved in making your own equipment. For more on this, contact Dave Staples at Outside Images, P.O. Box 28, Easton, PA 18044-0028.

These are only a few examples of the growing number of videotapes produced with the archer in mind. They range from those designed to compete with other forms of television entertainment—coupled with a thread of useful information—to those of purely instructional nature with perhaps an undercurrent of commercialization.

Most promote better bowhunting. And there's nothing wrong with that.



LEWIS AND RIFLE BUILDER Jim Peightal look over Lewis' 22 rimfire squirrel rifle. It's based on a Martini action manufactured by Birmingham Small Arms Company. Peightal installed a new operating lever with a short throw, a Shaw barrel and a 22 match chamber. A 1.5-6x Bausch & Lomb scope completes the outfit.

THE MPL SQUIRREL RIFLE

By Don Lewis

Photos by Helen Lewis

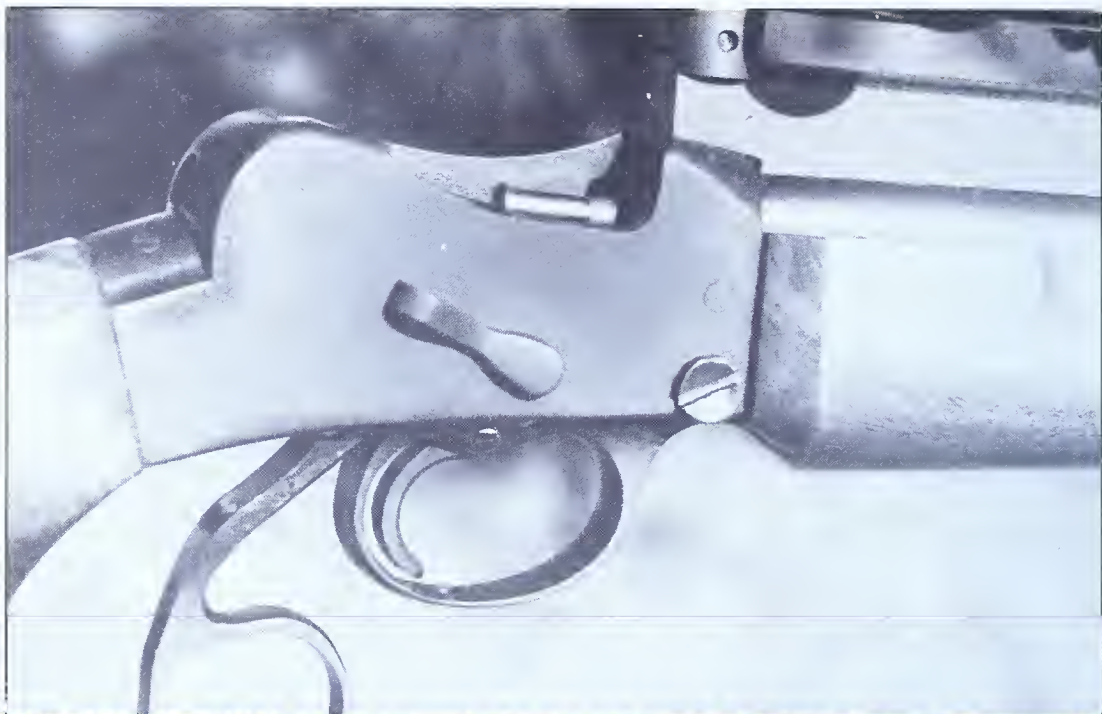
WHEN I'M SHOOTING groups, it's not wise for me to check each shot through a spotting scope. Doing that at various times over the years, I've discovered that I subconsciously make minor aiming adjustments. In other words, I use a different sight picture for each shot.

During the first 5-shot test group I fired through my new MPL, a peek through a Bausch & Lomb Elite 15-45x spotting scope revealed the first four shots had gone into one hole on the 50-yard target. That certainly proved the new heavy barrel single-shot rimfire rifle was accurate enough for squirrels, but I had to get the fifth shot in before I could declare my new squirreler would put five shots into one hole at

50 yards. I don't know what happened, but the fifth shot strayed from the group. Even though the group measured only $\frac{5}{8}$ -inch center to center of the two widest holes, my boast of building a one-holer would have to wait.

At this point, some of you may be wondering what MPL means. It's just three initials that stand for Martini (the name of the action), Peightal (the custom rifle builder) and Lewis (yours truly, who designed the outfit).





THE RIGHT SIDEWALL of the squirrel rifle was cut out to facilitate loading. Snapping the operating lever with authority tosses empty cases clear of the action. Martinis, like many competition actions, don't come with safeties, so Lewis had the action drilled to accept one.

I cut my shooting teeth on squirrel hunting in the 1930s. A large woods below our home always had squirrels. I spent many mornings and evenings with a single-shot 22 rimfire in that timber. But in time I became an adult with responsibilities, and shop work kept me out of the woods. It seemed my squirrel hunting days were over.

During the 1960 hunting season, I visited a fellow who raised rabbit dogs. While I was checking a nice looking pup, the fellow asked me to go on a squirrel hunt behind his home. My hunting coat and license were always in the car during November, but I didn't have a firearm. He offered me a battered, scoped bolt-action rimfire he had just finished sighting in. "It's dead on," he said emphatically.

A half hour later, I watched a gray come out of a den tree about 35 yards away. When I raised the rifle, it whipped around the tree. I thought it was gone for good, but a minute or two later I discovered it was watching me, with only its head and neck exposed. I froze the crosswire of the 4x scope on the neck and pulled the trigger. The

squirrel didn't move. I fired again without disturbing my quarry.

Before I could get off a third shot, the gray raced into the top branches and stopped. I had a wide open rib cage shot. I fired twice before it moved a little higher. When the fifth shot failed to connect, I stood up and the squirrel took off. So ended that hunt.

I was operating a sight-in range at the time, and my host really poured it on about my shooting ability. He felt I should close my range and take up basket weaving. There was nothing I could say, but when we got back to his house I noticed his target tacked to a board at the end of his garden. Three holes were scattered in the 2-inch bullseye, and three or four other shots printed outside the aiming point. At 35 yards, he cut a 3-inch group. I never mentioned the target, but I felt better on my drive home.

Strangely enough, that discouraging shooting episode rekindled my desire to take up squirrel hunting again, with a scoped rimfire. The first hurdle would be to find an accurate rifle.

During the winter months, I tested

WHILE IT'S MORE IMPORTANT for a squirrel hunter's rifle to have first-shot accuracy from a cold barrel than to shoot tight groups, these clusters, nonetheless, show the rifle's accuracy potential. All are less than $\frac{3}{8}$ -inch, the smallest measures $\frac{1}{8}$ -inch.



at least a half-dozen scoped bolt-action outfits, but none had the group potential I needed to meet my accuracy demands. I found several outfits that gave decent results on the 50-yard range, but a Savage/Anschutz Model 64 Match—with match ammo—was the first rifle to consistently print half-inch groups.

This bulky target rifle weighed almost 10 pounds, with a sling and long, one-inch 6x Unertl target scope, and I admit it sure looked strange in the squirrel woods. Other hunters thought so, too, shaking their heads and asking about the size of wheels it took to carry it. All the sarcastic comments failed to faze me; the $\frac{3}{8}$ -inch, 50-yard 5-shot group pasted on the top of the scope's eyepiece usually quieted even the most vehement critic.

Sometime around 1968, Milt Anderson contacted me about buying a top quality squirrel outfit. Milt said he had pretty much given up shotgun hunting because of his work schedule. He said squirrel hunting with the rimfire was his first choice, but he had never owned a good scoped rimfire.

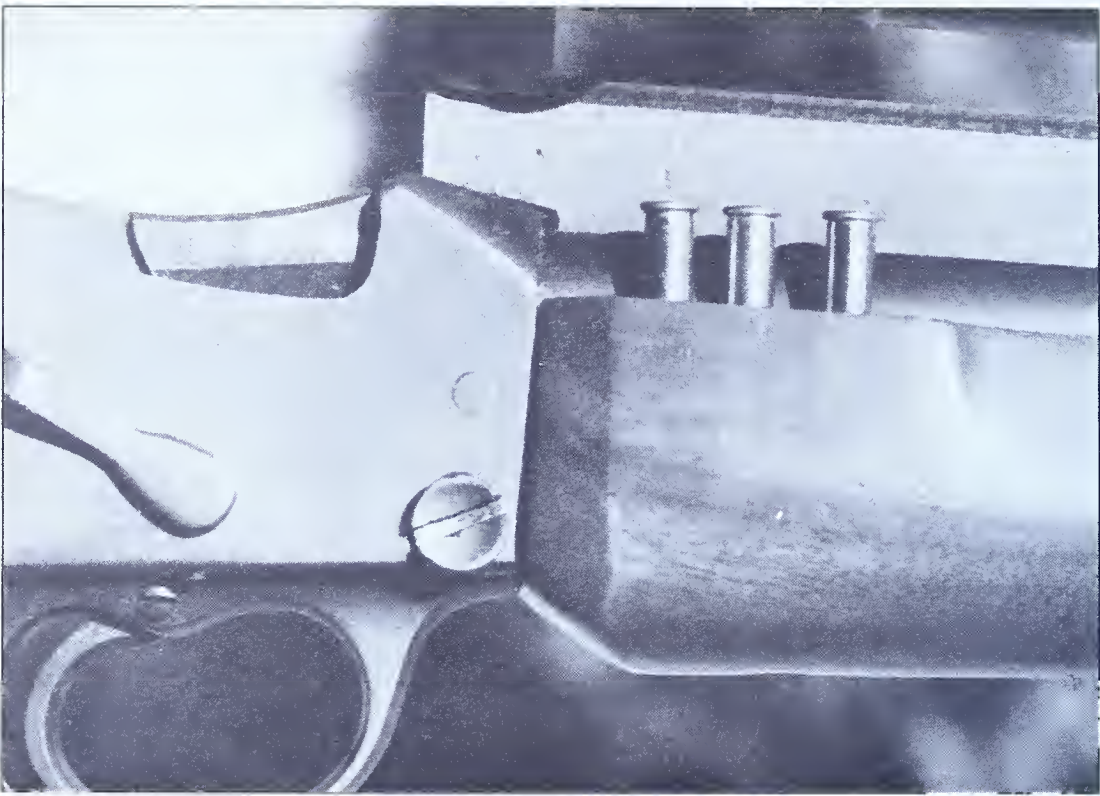
Without getting involved in all the details, I installed a Unertl 1-inch target scope on a Remington Model 521T

(now discontinued). Also, I incorporated several parts from the adjustable trigger on Remington's Model 513T Matchmaster. With that modification, trigger pull was reduced to a clean, crisp three pounds, and free play and overtravel were virtually eliminated.

With Winchester Long Rifle EZXS, the 521T turned in a superlative performance. Helen fired the best 5-shot group, which measured just under $\frac{5}{16}$ -inch, but $\frac{1}{2}$ - and $\frac{5}{8}$ -inch groups were common on the 50-yard range. Today, 22 years later, Milt's 521T is still printing tight groups.

Down through the years, I've hunted with a half-dozen super accurate 22 rimfire rifles. But I knew I wouldn't be satisfied until I had more in a rifle than just accuracy. The thought of building my own special rimfire tormented me every squirrel season. Two years ago, I decided to do more than just think about it. With the help of custom rifle builder Jim Peightal, Ernest, I purchased a single-shot lever-action Martini Cadet 22 rimfire from Navy Arms in New Jersey.

The Martini action is a story in itself. Space does not permit going into great detail, although I did discuss the action



SINCE THE MPL is a single-shot, Peightal drilled three holes in the edge of the fore-end to hold extra ammunition. Because there was no simple way to govern the rifle's trigger pull, Lewis stopped the sear notch and top of the trigger arm with leather and a fine abrasive compound. Pull weight was reduced to three pounds.

in my April 1990 column, "The Impact of the 22 Hornet." This simplified falling block action was designed by Frederick von Martini around 1868. It was a great improvement over other falling blocks actions, which were complex in design. There's no question it's a strong action and has been used for many large caliber cartridges. The Cadet action is suitable for the rimfire, 22 Hornet, 218 Bee, 222 Remington and a host of small wildcat cartridges.

Martini Action

The Martini action was adopted by the British military, and English gunsmiths turned out a variety of target rifles on the military pattern. I have no idea how old my action is, but I assume it has seen a lot of shooting because the barrel has been relined. The muzzle is stamped, "Rifled by Alf J. Parker." The barrel was made by the Birmingham Small Arms Company (BSA).

Some Martinis do not have safeties, but I didn't want a hunting rifle without

one. After studying the action, my good friend Lloyd Norris of Brackenridge drilled a .310 hole through the action just in front of the top part of the trigger.

This was a precise operation because the round .310 pin has to rub against the top end of the trigger, which I will refer to as the trigger arm. This eliminates forward movement of the trigger arm and makes it impossible to pull the trigger. There is no free play.

When the pin is rotated down a quarter turn, a shallow cut in the pin is directly in front of the trigger arm. When the trigger is pulled, the trigger arm moves forward into the cut. The cut is just deep enough to allow the trigger arm to escape out of the sear notch before resting against the bottom of the cut. There is no overtravel.

There is no simple way to govern pull weight, but by stopping the sear notch and top of the trigger arm with leather and a fine abrasive compound, it was reduced to three pounds.

Instead of cutting down the original barrel, Peightal used a fairly new 224 barrel that had been on a 22 CHEetah, which has the same 1-in-16 twist used in rimfires. Early range tests showed the 224 barrel to be accurate. Most 5-shot 50-yard groups stayed well under $\frac{3}{4}$ -inch, and printing less than half-inch groups was not uncommon. Then, so to speak, the bottom fell out.

A squirrel rifle must be accurate on its first shot because most shots are taken from a cold barrel. The 224 barrel failed this test miserably. It was no trick to put a 3- or 5-shot $\frac{5}{8}$ -inch group on the aiming point after the barrel had heated up. From a cool barrel, though, the first two or three shots landed more than an inch from the aiming point.

When we discovered the CHEetah barrel was heavily fouled with copper plating, we thought that was the problem. After two days of soaking and then brushing, a borescope showed the barrel was completely clean, but the problem remained. Jim and I finally concluded that the .219-inch bore and .224-inch groove diameter of the 22 centerfire barrel was too large for lead rimfire bullets.

Next I contacted barrelmaker E.R. Shaw, Inc., Bridgeville, and ordered a 24-inch, $\frac{7}{8}$ -inch diameter rimfire barrel that has a .217-inch bore diameter and a .222-inch groove diameter. Shaw stress-relieves the steel before any machining operations, including drilling, reaming, rifling and chambering.

After getting the barrel, Peightal installed a 22 match chamber. Normal headspacing runs from .043 to .047, but a Freeland's Viking rim gauge showed that both Eley Tenex and RWS R-50 Match ammo had rims thinner than the normal .042 thickness found on conventional rimfire ammo. I suggested using minimum headspacing in the rim cut in the match chamber. This would tighten the headspacing and also virtually eliminate the possibility of misfires when target ammo was used.

Jim designed a beautiful full-grained stock and forearm, and installed a new operating lever and a special scope



mount. A 1.5-6x Baush & Lomb scope factory focused for 50 yards put the finishing touches to the 9-pound outfit. The moment of truth had arrived; the benchrest would write the final chapter.

For ammo, I was torn between Eley Tenex (Red Box) and RWS (Dynamit Nobel) R-50 Match. As I had considerably more R-50, I settled for it and fired close to 50 rounds, just to condition the barrel. The results were certainly encouraging. Groups were tight and the first shot was always close to the aiming point.

After sighting it in at 50 yards to make certain I had a first-shot, dead-on rifle, I left it set at room temperature for 24 hours. The next day, my first shot hit almost the exact center of a 1-inch bull. Next I left the rifle outside in 40° temperature for three hours before firing a second shot. It touched the first hole.

The next morning, the MPL was outside for nearly three hours in 21°. I was apprehensive when I placed the new outfit on the sandbags and closed the lever. My fears were groundless; the first shot finished off a tiny cloverleaf. I had the rifle—and the ammo—I was looking for.

With such an accurate rifle, it's embarrassing to admit I missed the first squirrel, at 30 yards, but my next opportunity with the MPL produced a fox squirrel that tipped scales at 2 pounds 2 ounces. That's a large fox squirrel.

Time will be the final judge, but it appears my quest for a custom, tack-driving squirrel rifle I always wanted is at an end.

In the wind

j. scott rupp



Illinois sportsmen and conservationists turned back an attempt by anti-hunters to stop bowhunting on a state park. State game officials had identified a surplus of whitetails on Rock Cut State Park and initiated a three-year plan to thin the herd to healthier population levels. The plan included a bowhunting phase, and anti-hunters rallied to halt it. But at a public hearing the plan received what a state biologist called "broad-based support," and testimony was heard from both hunting and environmentalist groups. The anti's arguments fell on deaf ears, and the bowhunt went as planned. Eighty whitetails were taken during the 39-day archery phase.

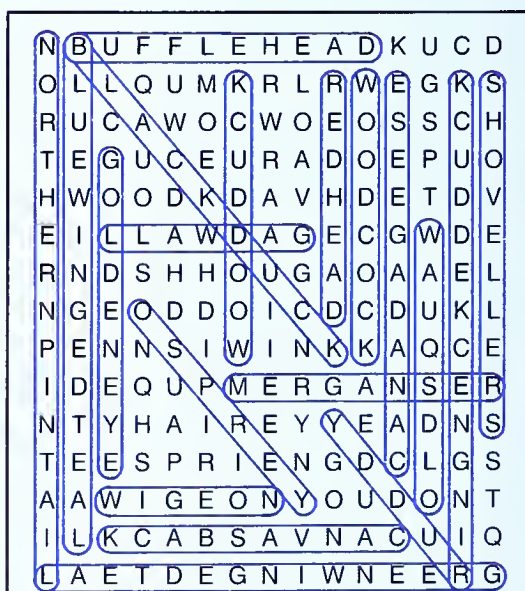
Handicapped outdoorsmen in Delaware will benefit from new hunting programs on Bombay Hook and Prime Hook national wildlife refuges. Ramped deer stands were built on Bombay Hook to afford wheelchair-bound sportsmen better opportunities when hunting the thickly wooded area. Prime Hook maintains goose blinds developed specifically for handicapped access.

Logging on Alaska's Tongass National Forest will be reduced with the passage of the Tongass Timber Reform Act. Tongass is the country's largest national forest and the world's biggest temperate-zone rainforest. It is home to the highest concentrations of grizzly bears and bald eagles in the nation, and supports more than 400 other wildlife species. Six wilderness areas comprising nearly 300,000 acres will be created under the reform act, and another 700,000-plus acres will also be protected from logging.

A fraudulent license scheme cost two nonresident Wyoming hunters \$57,000 in fines. The two men, one from Arkansas and the other from Missouri, had been illegally receiving big game licenses for more than 20 years. And because the pair was also charged with interstate transportation of illegally taken wildlife—a federal offense—neither man will be able to possess firearms or hunt anywhere in the United States for three years.

Canadian wildlife officials, intent on reintroducing the swift fox to southern Alberta and Saskatchewan prairies, have begun trapping the small mammals in southeastern Wyoming. The swift fox, about half the size of a red fox, is a prairie dweller that was eliminated over much of its range during the 1920s and '30s. Populations are on the rebound in the United States.

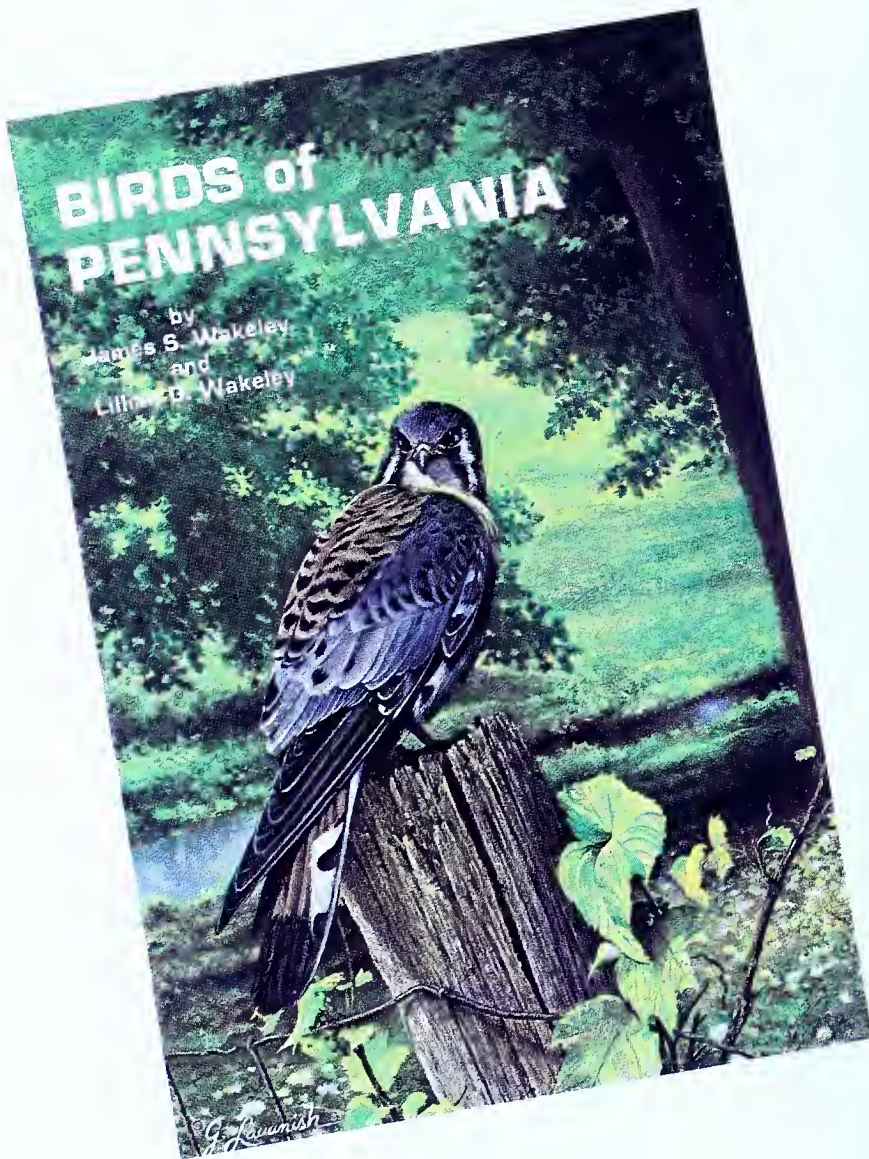
An exploding deer population in the Quabbin watershed area of Massachusetts has prompted the state legislature to open the area to hunting. Extensive overbrowsing was inhibiting forest regeneration and causing, in turn, deer herds to suffer. Also at the encouragement of Massachusetts sportsmen, the state passed legislation requiring sportsmen to purchase a \$5 land stamp, which will fund land acquisition for hunting and other recreational activities.



Bonus Answers: Osprey, Woodcock



Working Together for Wildlife patches have proven to be extremely popular over the years. The first two in the collectible series, the osprey and river otter, issued in 1982 and '83, respectively, sold out quickly, and supplies are limited for the remaining patches. Funds derived from the sale of WTFW patches — and fine art prints — are used to support nongame wildlife research and management programs. Patches cost \$3 each, delivered. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.



Birds of Pennsylvania: Natural History and Conservation, a completely new book by Jim and Lillian Wakeley, includes the most up-to-date information on bird biology and behavior, and the kinds of birds commonly found in the state, arranged according to the type of habitat where they are most likely to be seen. This 214-page hardcover book, supplemented with 40 full-color pages featuring the Game Commission's popular bird charts and previous GAME NEWS covers, is being sold for \$10, delivered.

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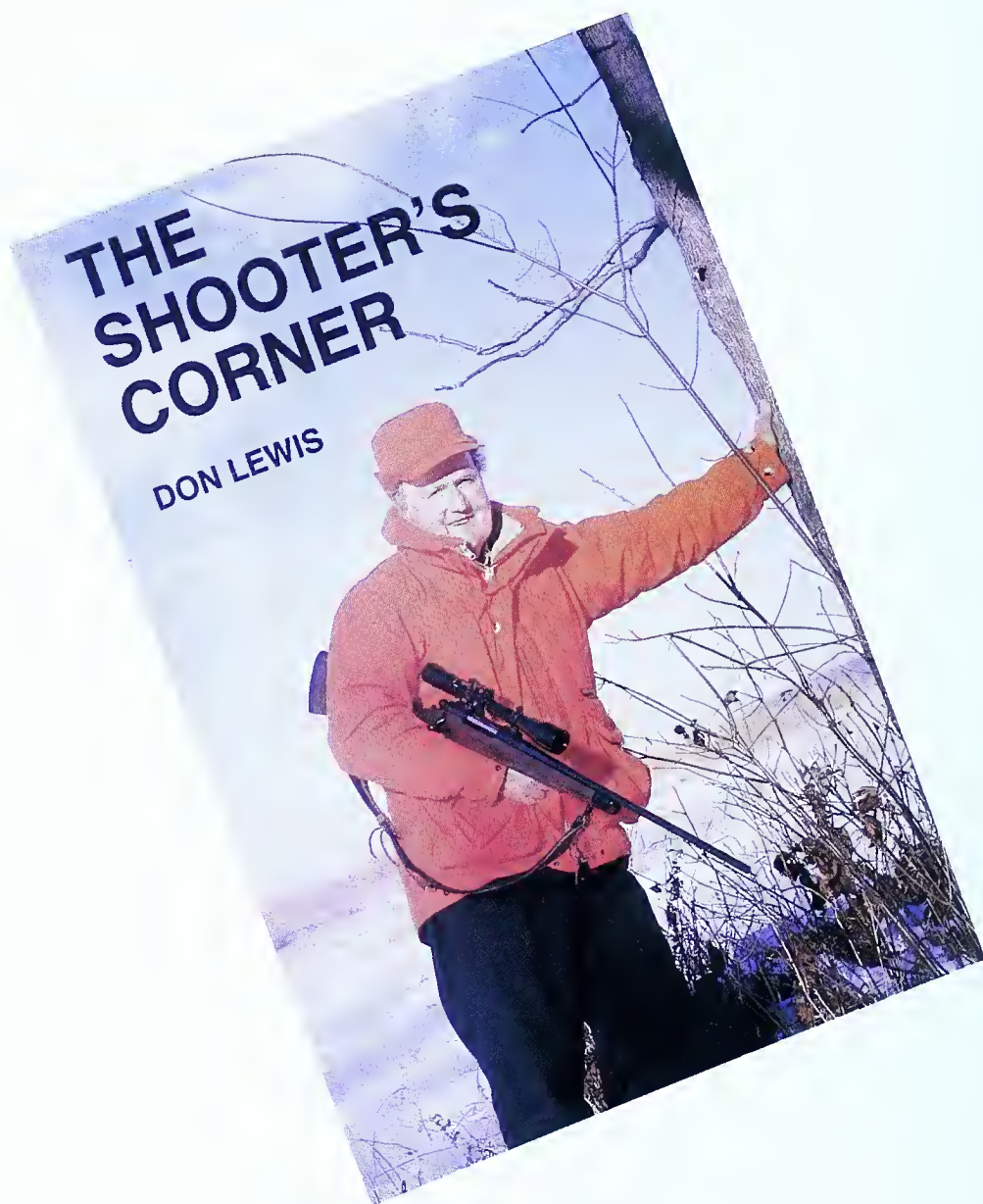
PENNSYLVANIA GAME NEWS

JUNE 1991

ONE DOLLAR



DOUG PIFER



THE SHOOTER'S CORNER, by Don Lewis, is a 449-page hardcover book that covers nearly every facet of the shooting sports from a hunter's point of view. Beginning with the history of firearms, Don covers actions, stocks, and barrels; scopes and metallic sights; rimfire, big game and varmint cartridges; shotguns, gauges and fit; and a whole lot more. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. Price is \$15 delivered.

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FEATURES

Bringing Back the Osprey	3
By Steve Gehringer	
All Part of the Game	7
By Diana S. Berger	
Deer Hunting Accidents From a Medical View	11
By Jim Filkosky	
His Name Is Bear	14
By William Johnson	
Falconry	20
By C. J. Marshall	
Rabies Update	24
By Larry Iampietro	
A Woodchucker's Odyssey	26
By Charles E. Travis, Jr.	

NEWS

Field Notes	32
Conservation News	37
PGC 25-Year Club	40
In the Wind	64
By J. Scott Rupp	

COLUMNS

Fun Games	6
By Connie Mertz	
They're Stylish, Too (Another View)	41
By Linda Steiner	
Outdoor Wildlife Learning	44
By Bill Einsig	
WCO Diary	46
By Keith A. Snyder	
Thornapples	51
By Chuck Fergus	
Keystone Considerations (Archery)	55
By Keith C. Schuyler	
The Time Factor (Guns)	60
By Don Lewis	

COVER PAINTING BY DOUG PIFER
(Cover Story on Page 25)

Here's Your Chance

Unquestionably, the tradition runs deep. For upwards of a million or so of us, the Monday after Thanksgiving means but one thing, the opening of buck season. As the Pennsylvania antlered deer season has opened on that particular day for decades, many of us can't imagine doing anything else at that time of year.

With such a strong tradition, it's easy to be lulled into thinking that deer hunting has remained unchanged over the years and that it won't change in years to come. But that's hardly the case. Deer hunting opportunities have been expanding since the agency was formed almost a century ago, and they undoubtedly will continue to do so in the years ahead.

The first Pennsylvania buck law, passed in 1907, gave does complete protection. In 1923 the agency was given authority to establish antlerless deer seasons, which it did that year. In 1931 both bucks and does were fair game, except protection was granted to spike bucks. A major highlight came in 1951 when a special season was set just for archers. Then, in 1964, the late or winter archery season was added. In 1974 the flintlock muzzleloader deer season was offered for the first time. Only three days long and open only on 37 designated state game lands, the season has since been extended to more than two weeks across the state.

Other modifications to the deer management program include the legalization of the compound bow, in 1971, and then the legalization of the mechanical bow release in 1982.

Antlerless seasons have increased from what was normally two days to the three-day season we've seen in recent years. Then, of course, the implementation of the bonus deer program in 1988 gave sportsmen the opportunity to take more than one deer in a license year—something few resource managers dared to even imagine just a decade or so ago.

Sportsmen have been quick to take advantage of these increased opportunities. Archery license sales amounted to only 5,542 in 1951. They peaked in 1982 at 283,131, declined slightly since, but then reached a new high just last year. The growth of muzzleloading enthusiasts was even more dramatic. The first year saw 2,064 hunters afield. Their numbers virtually doubled in each succeeding year, reaching 145,144 in 1981. Regulations enacted in 1984 to provide some control of muzzleloader harvests have reduced the number of black powder hunters, but 100,000 or so sportsmen still take advantage of that primitive arms season.

Deer harvests have grown in recent years, too. The results of the regular 1990-91 antlered and antlerless deer seasons are covered in "Conservation News," beginning on page 37. That feature itself represents another milestone in Pennsylvania deer management. This year, for the first time, the agency is promoting actual deer harvests, not simply the number of report cards actually received by the agency.

Deer hunting in Pennsylvania has been continually evolving in response to changes in deer numbers, management techniques, public demands and sportsmen's expectations. And the sport will certainly continue to change over the years. In fact, the agency is anxious to explore even more deer management strategies.

Also in this month's "Conservation News" is an announcement of upcoming public meetings the agency is holding—one in each region—to give sportsmen, landowners and others an opportunity to comment on the future of deer management in Pennsylvania. If you have any specific ideas or concerns about the future of deer management in Pennsylvania, attend one of these meetings. This is your chance to express your thoughts and desires. —*Bob Mitchell*



BY THE EARLY 1960s ospreys no longer nested in Pennsylvania, although they were once common here. A cooperative project by the U.S. Army Corps of Engineers, the Commission, and Penn State and East Stroudsburg universities is placing juvenile birds in artificial nests and raising them in a semi-wild environment in order to bring the species back to nesting status.

Teamwork Turns the Tide . . .

Bringing Back The Osprey

By Steve Gehringer

WCO, Tioga County

THANKS TO A cooperative project between the U.S. Army Corps of Engineers, the Pennsylvania Game Commission and wildlife professionals from the Dubois Campus of Penn State University and East Stroudsburg University, ospreys may once again nest and raise young in northcentral Pennsylvania. This project, which is located on the Corps of Engineers' Tioga/Hammond Dam complex in Tioga County, is an effort to place juvenile ospreys in artificial nests and raise them in a semi-wild environment, in the hope that when mature, the birds will return to the area to nest.

Ospreys are fairly large fish-eating birds of prey that inhabit coastlands, large lakes and rivers throughout North America and other parts of the world. Historically, they were a common nesting species in Pennsylvania. Due to many factors, including water pollution, wetlands destruction and increased use of pesticides which inhibit their reproductive capabilities, osprey populations declined drastically through the 1900s. By the early '60s, no ospreys were known to nest in Pennsylvania.

About that time, though, increasing concern over environmental degradation led to legislation that helped to



RESEARCHERS PLACED young ospreys in "hacking" towers and fed them in such a way that the birds were unaware that they were being fed by humans. The feeding continues until the birds fledge and are able to hunt and take food on their own.

it takes considerable time to repopulate areas where no ospreys nest. Because only a few ospreys nest in Pennsylvania, the species is officially classified as "endangered."

Wildlife researchers, however, have devised a technique called "hacking" which enhances the dispersal process. Hacking is a falconer's term for the process of maintaining a juvenile bird of prey in an artificial nest in a semi-wild condition. For our research purposes, artificial nests are placed in hacking towers located in suitable habitat with adequate prey populations. The juvenile birds are fed by researchers without the birds seeing or realizing they are being fed by humans. This feeding continues until the birds fledge and are capable of hunting and taking prey on their own.

Ultimately, it is hoped that the juvenile birds will imprint on the hacking site and return there to nest when they mature. This technique has become a proven reintroduction method for bald eagles, peregrine falcons and many birds of prey.

Ospreys were first successfully hacked in northeastern Pennsylvania during the early 1980s by Dr. Larry Rymon from East Stroudsburg University. The program hacked more than 100 ospreys to form the nucleus of what's become a viable breeding population in the Poconos.

The Tioga/Hammond Dam hacking project began in 1988, when local Game Commission and Army Corps personnel met to discuss the feasibility of such a project. Dr. Rymon visited the area and offered valuable advice on hack site location and construction. In 1989, a hacking tower was constructed on the Hammond Dam by U.S. Army Corp personnel under the supervision of their resource manager, Rich Koepel. Some materials and labor were donated by local businesses. With four

clean up some of our waterways, preserve habitat and regulate the use of pesticides. All those, in one way or another, gave protection to birds of prey.

Gradual Increase

As a result, osprey populations gradually began to increase, and during the 1970s and '80s osprey sightings became more common in Pennsylvania during spring and fall migrations. At the Tioga/Hammond Dam complex and other bodies of water in Tioga County, increasing numbers of ospreys stopped to rest and catch fish during their trips north and south. Here, too, sightings became more common. Despite the increased number of migrants, none of the ospreys stayed to nest in Pennsylvania.

Researchers have learned that ospreys, in the fall, when they are about five or six months old, migrate to Central and South America. There they remain for at least 1½ years, and then they normally return to their place of birth and begin to produce young. There is very little natural dispersal to other potential nesting areas by ospreys when they reach sexual maturity. Thus,



OSPREYS removed from wild nests are flown immediately to the hacking site, where they are examined and fitted with colored leg bands for identification purposes. They are then put in the hacking towers. All this is accomplished in the shortest time possible, in order to minimize stress on the juvenile birds.

nesting compartments, up to 16 ospreys can be raised on the tower each year.

The project was designed to be a 5-year program with an objective of fledging approximately 70 birds. For re-introduction purposes, large numbers of ospreys should be hacked to ensure success because juvenile birds have a high mortality rate.

In 1990, nestling ospreys were finally brought to the hack site. On July 3, [through the cooperation of the Virginia Fish and Game Department] Dr. Rymon obtained nine birds from Chesapeake Bay area nests. From now on, birds will be obtained by the Game Commission, from nests monitored by the Maryland Department of Natural Resources. The Chesapeake Bay area has a large breeding population of ospreys, and the removal of birds will not adversely affect the population. Only one young per nest is removed.

The young ospreys ranged from 5½ to seven weeks of age when they were taken from their nests and immediately flown to the hack site. That same day

they were examined and fitted with colored leg bands for identification purposes. They were then placed in the artificial nests in the hacking tower. The swiftness of this process is designed to minimize stress on the juvenile birds.

Student Aid

Wildlife students from the Dubois Campus of Penn State University, under the supervision of professors, Gary Witmer and Joseph Hummer, were responsible for feeding and monitoring the juvenile ospreys during the hacking process. The birds remained in the nest for up to three weeks, depending on physical development, and were fed mostly carp and panfish—common species in the Tioga/Hammond lakes. Researchers could observe the birds through one-way glass. This minimized human contact with the young birds and prevented the birds from imprinting on the researchers.

When the birds were ready to fledge, one side of the nest was lowered, which

enabled the birds to fly out. Fledged birds continued to return to the hacking tower to feed until they learned to catch fish on their own, at which time they became more independent. Gradually, the young ospreys flew farther from the nesting area, and on numerous occasions were seen catching fish on other nearby lakes. By the end of August, none of the ospreys remained near the hacking tower, and it was assumed most of the birds had begun their southward migration.

We won't know the fate of those os-

preys for up to three years, when, we hope, they return to Tioga County and begin nesting on their own. There are countless dangers facing these birds. Many will not survive long enough to return. It is believed that two of the ospreys hacked in 1990 died within several months of release. However, if a sufficient number of young birds are hacked over the duration of this project, some birds will likely return. Then, perhaps, in the not too distant future, ospreys will once again nest in north-central Pennsylvania.

Fun Games

“Don't Get Too Cocky”

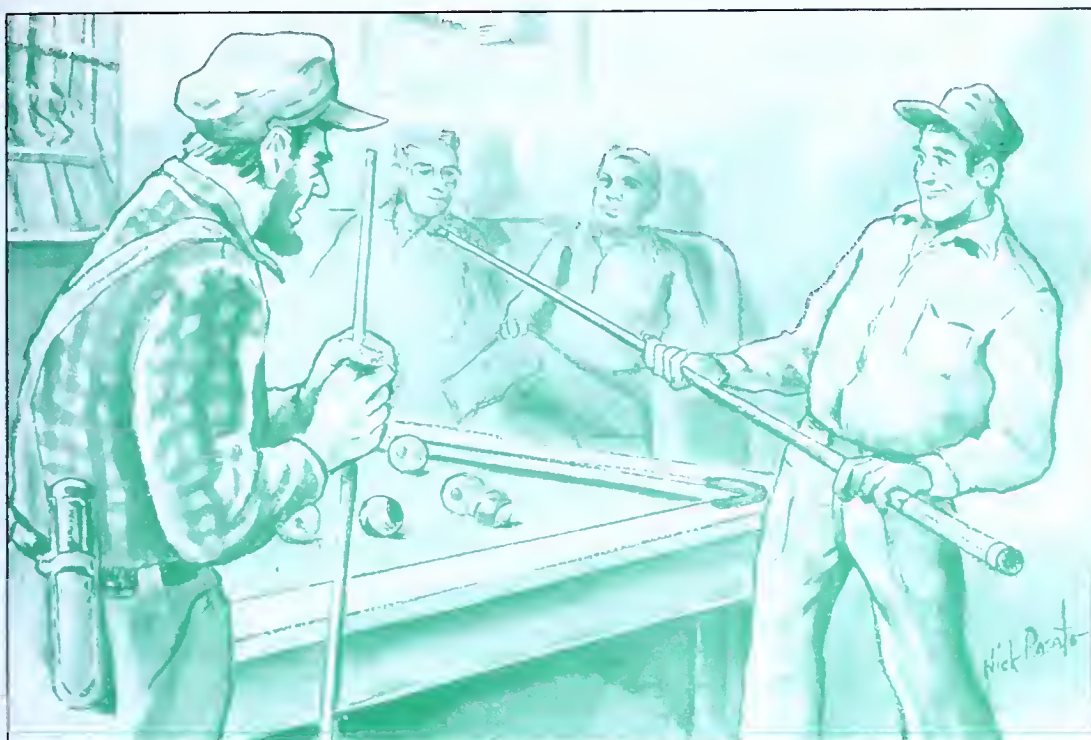
By Connie Mertz

Place an “X” by the three statements that are untrue.

- 1. _____ The woodcock is also called a “timberdoodle.”
- 2. _____ The chief source of food for woodcocks are insects.
- 3. _____ The woodcock’s ears are located between the eyes and bill.
- 4. _____ Woodcocks migrate.
- 5. _____ Because of its flexible mandible (upper bill), woodcock are able to grab earthworms underground.
- 6. _____ A woodcock’s whistling is caused by the three outermost primary wing feathers.
- 7. _____ Sensing danger, woodcocks will usually flush.
- 8. _____ Woodcock nest high in trees.
- 9. _____ The woodcock has the unusual ability to see in all directions because of its binocular vision and the location of its eyes.
- 10. _____ Woodcocks can be legally hunted in Pennsylvania.

Write the numbers of the false statements and then change the underlined portions to make them correct.

Answers on page 64



THE BASEMENT of our house was warm from the crackling and purring of the wood stove blowing its hot, slightly sooty air through a fan. The pool table commanded the center of the room, where young Brian and his older billiard rival were intently chalking their cues for the next round.

All Part of the Game

By Diana S. Berger

THE IVORY-COLORED pool ball rolled slowly across the green felt and clinked gently against the eight ball. The eight ball, in turn, rolled to a pocket, teetered precariously on the edge for a few agonizing seconds, then froze where it was.

A howl of victory was heard from the large, bearded man who had watched the performance. My cousin Brian, who had made the shot, seemed to accidentally stumble against the table. The delinquent eight ball dropped obligingly into the corner pocket, just as called.

"Oh, no, you don't, boy," exclaimed Gordon, the bearded man. "Unfair! That was a foul move if I ever saw one."

"It counts," Brian insisted, grinning. "House rules."

Gordon snorted. "House rules indeed." His three hunting companions,

who were looking on, howled with laughter. "House rules" was an old joke—one Brian always resorted to when he was losing.

"He's got you there, Gordon," Mike informed him.

"All right, another game," said Gordon. "And this time, I get to know all the house rules in advance."

The basement of our house was warm from the crackling and purring of the wood stove blowing its hot, slightly sooty air through a fan. The pool table commanded the center of the room, where 16-year-old Brian and his older billiard rival were intently chalking their cues for the next round.

Perched on the sink, lounging on the couch and relaxing in a motley collection of chairs, the other occupants of the room were watching the game,

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which had been going on for several hours. The contents of several plates of crackers and cheese and beef sticks were shrinking rapidly. Though the pool game was the center of interest, the topic of conversation always came back to one theme: deer hunting. That was, after all, why this mix of people gathered in our basement.

Michiganders

Besides Gordon, there were three other men who had just arrived from Michigan; traditionally, they stayed with us for three or four days in buck season. There was Chris, his son Mike, and a new guy this year, Gary. My cousin, Brian, the current pool player, was threatening the defending champions from Michigan a little more seriously this year than last. My uncle Jack was there along with my brother Jim, my sister-in-law Carole, my boyfriend Bruce, and my parents.

Everyone had a different theory as to what the weather would be like opening day. Occasionally someone would mess with the Weatheradio, trying to get a good signal, but none of the forecasts said much about a remote region in northern Pennsylvania where thou-

sands of eager deer hunters were anxiously awaiting the next 24 hours. We decided to take Jim's advice, which was, "Wear all the clothes you have. Has it ever been warm and dry on the first day?"

The best part of the entire opening-night tradition was the stories. Ever since I was old enough to stand up and go downstairs by myself, I loved the hunting stories told by the men and women, in their red-and-orange hunting caps, faces reddened by cold air, standing around by the fire. Now that I was a legitimate part of the group, I still liked how everybody subtly worked one of their success stories into the conversation at some point. But even more interesting to me once I became more of a veteran was when somebody countered a success story with an embarrassing tale of a less than successful incident.

Unfortunately, nobody, if they'd been hunting very long, was immune. Not even the people we'd never met.

Dad usually had the best stories. This night he told us one he'd heard in the sporting goods store that afternoon. "Anybody hear about the guy from downstate, his first time hunting, who decided to use bottled buck lure on the first day of archery?" No one had. The pool players pretended to concentrate on their game, but they were listening. Dad grinned and continued.

"Well, he dribbled this doe scent down the trail all the way to his stand. When he got there, he sprinkled some more all around his tree, then climbed up to wait. He wasn't there even five minutes before they came at a dead run, galloping eagerly down the trail, noses to the ground, snuffling and grunting . . ." Dad paused for dramatic effect, smiling as he watched us all imagining the scene.

"Two big Jersey bulls," Dad finished. We were soon to learn that the hapless man was stuck in his tree stand for most of the day, until the bulls wandered off.

Gordon, it seemed, always took a lot of good-natured kidding because, to the annoyance of his hunting partners, he

AS THE NIGHT grew later, the tales grew taller. There was one story about a 10-point that spent the entire hunting season relaxing behind a "Safety Zone" sign. We all gradually headed off to bed to catch some sleep before the big day.

nearly always got a buck. When the stories started, one of his buddies would jump in with a comment. "Did you hear Gordon fell asleep up in the woods today while he was supposed to be out scouting for a stand?" one of them hooted. Someone immediately wrote on the chalkboard normally reserved for messages: "If fat, bearded hunter found snoring in woods opening day . . . do not disturb."

Gordon, though, was always able to throw the heat onto someone else. "It's his first trip up here," he said, pointing to Gary. "He's gotta sleep down here tonight with the cat." The others laughed appreciatively, having had to deal with the cat in previous years. Our cat was notorious for waking people up in the middle of the night to present them with a dead mouse or mole. "No reason he shouldn't be as proud of his hunting trophies as anyone else," I said in his defense. Curled up under the pool table, the cat opened one eye, seemed to grin briefly, then went back to sleep.

Brian would usually manage to sneak in some reference to his 9-point buck, taken his second year of hunting. That, it seemed, was something of a sore to the experienced Michigan hunters, who had all bagged spikes that year. But Brian, or "Ol' Dead-Eye," as they half-jokingly called him, was not without his hunting skeletons in the closet. "Well, that deer practically run over you afore you remembered to shoot 'im!" Gordon guffawed. Brian only grinned, not really denying it.

Carole and I exchanged reminiscences of our first deer—we'd both taken them the same year. Poor Carole, she should've known somebody would bring it up. "Remember when Carole clicked her deer?" said Dad. Everyone did, but we all wanted to hear the story again. On stand one year, Carole had in her sights a nice buck. Her 30-30's



magazine was fully loaded, the gun nestled on her shoulder, a perfect broad-side shot. When she pulled the trigger . . . CLICK. She had, of course, forgotten to load a round in the chamber.

Carole's story was one of Dad's all-time favorites, and he had, unfortunately, immortalized the incident. The valley where it happened was thereafter referred to as "Where Carole Clicked Her Deer." Though we laughed, everyone among us could ruefully recall a similar incident in our own hunting careers.

Taller Tales

As the night grew later, the tales grew taller. There was one about a 10-point that spent the entire season relaxing behind a "Safety Zone" sign. Another was about two hunters who were having trouble dragging a deer they had shot. An older, experienced hunter met them and offered some advice. "If you drag the deer by the horns, skidding it with the lay of the hair, it'll be easier," he said. The hunters agreed and began dragging the deer by the antlers.

About half an hour later one of the hunters said, "The old guy was right—this sure is easier." The other one replied, "Yeah, but it's not getting us any closer to camp." They had forgotten to turn the deer around.

Wiping tears of laughter from our eyes, we all gradually headed off to bed, to catch forty winks before the big day.

The sun had not yet come up when we stumbled outside, bundled up in orange and sleepy-eyed from the long night of storytelling. The shock of the cold Potter County air instantly woke us up. For a few minutes we milled around, lacing up boots and loading our pockets with candy bars and shells.

There was little talk that morning, only mutters of "good luck" and "see yuh on top." Gradually, everyone trooped off in separate directions, each toward a preferred stand or area to still hunt. Waiting for Bruce, I fingered the necklace I wore, strung with inch-long antler nubs of a deer I'd gotten the previous year in doe season.

The last thing I heard as I clomped out the door in my heavy boots was one of the Michigan hunters calling after me, "This year get a deer with antlers you *can't* wear around your neck!"

That evening, the storytelling session had moved from the basement to the barn, where we stood admiring two nice bucks hanging from the center beam. The discussion centered around who was going to help skin them out. A whole host of new stories had been added to our repertoire that day, and everybody took turns. Jim had seen eight deer, Gordon 10, Dad, 15. I'd only

seen one, but that was all that was really necessary, because it was now hanging in the barn.

It was a 4-point with the ends of all his antlers broken off. I kept touching those broken tines, lost in a glorious vision of my buck tangling with another big denizen of the herd, their antlers viciously locked, and the resounding crack as they snapped apart. One of the hunters who frequented our woods dropped by, and quickly snapped me out of my reverie.

"Huh," he snorted, examining my proudly displayed buck. "Look at those antlers. That poor deer had got his horns stuck in a tree, and you just walked right up and shot him. Ol' buck never had a chance. You even had to break off his antlers to get him outta the tree. Some nerve, tryin' to tell us you shot him at a hundred yards. Can't put that one by us, girl."

The Michigan hunters were standing by, snickering. I looked helplessly at Bruce, who had watched me get the deer, but he just grinned and went along with the adulterated version. I noticed a gleam in Gordon's eye, and I knew that this story was going to be added to the repertoire of true and tall tales told during unforgettable nights before opening days every year. Did I mind making a contribution to those tales? Nah—it's all part of the game.

Hunter Education Camps

The Game Commission's Northeast Region is offering two Hunter Education Camps this summer for young people ages 12 through 15. Both camps will be held at Camp Maple Lake, Forksville, Sullivan County. The first camp is scheduled for August 17–20; the second will run August 21–24. The camp is limited to 100 students per session; attendees will be accepted on a first-come, first-served basis. Each camp costs \$85, which covers meals, lodging, camp facilities, instructors, a full-time nurse, all educational materials, and ammunition for rifle and shotgun instruction. The program will follow closely the agency's Hunter-Trapper Education Program, with additional emphasis on shooting and archery, outdoor safety, compass and map reading, and survival. Students who complete the course will receive their hunter education certificates. Applications may be obtained from the Northeast Region office by writing Pennsylvania Game Commission, P.O. Box 220, Dallas, PA 18612. Additional information is available by writing Edward Sherlinski at the regional office, or by calling (717) 675-1143.



A GEISINGER Medical Center team, including Drs. Sheldon Brotman, left, and Gregory Norkus, combined the medical skills and hunting knowledge of its members to study deer hunting accidents. Using Game Commission records, the physicians looked at 295 accidents that occurred from 1982 to '88.

Deer Hunting Accidents From a Medical View

By Jim Filkosky

Chief, Hunter-Trapper Education Division

EVERY YEAR the staff at the Geisinger Medical Center is called upon to administer emergency medical treatment to injured hunters. Most are victims of accidental gunshot wounds sustained while deer hunting in the rural counties that surround the medical facility.

A Geisinger medical team headed by Dr. Sheldon Brotman, trauma surgeon, wanted to learn more about how and why its patients and others become deer hunting accident victims. Team members included Dr. Joseph Smith, a critical care associate, and surgical residents Drs. Ernest Normington and

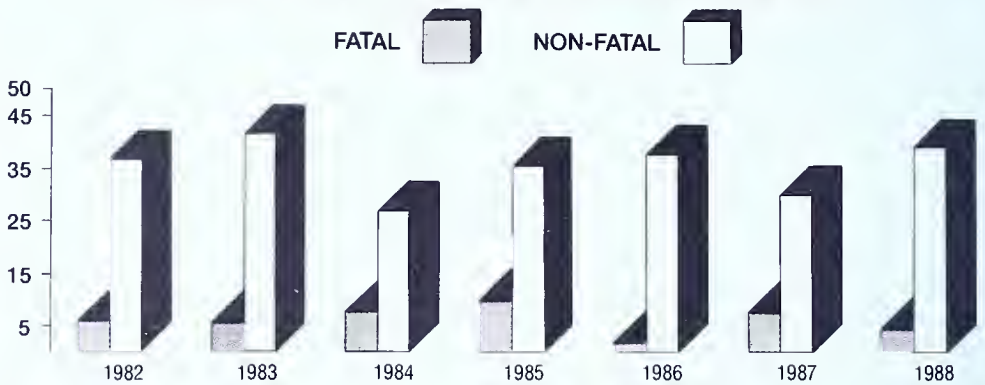
Gregory Norkus. Being hunters, they felt they could combine their medical skills with their hunting knowledge and prescribe some preventive medicine.

The Diagnosis

The physicians examined each of the 295 deer hunting accidents that occurred during the seven hunting seasons from 1982 to 1988. Those were the years for which the most complete accident information was available. Here is a summary of what the doctors learned from their research:

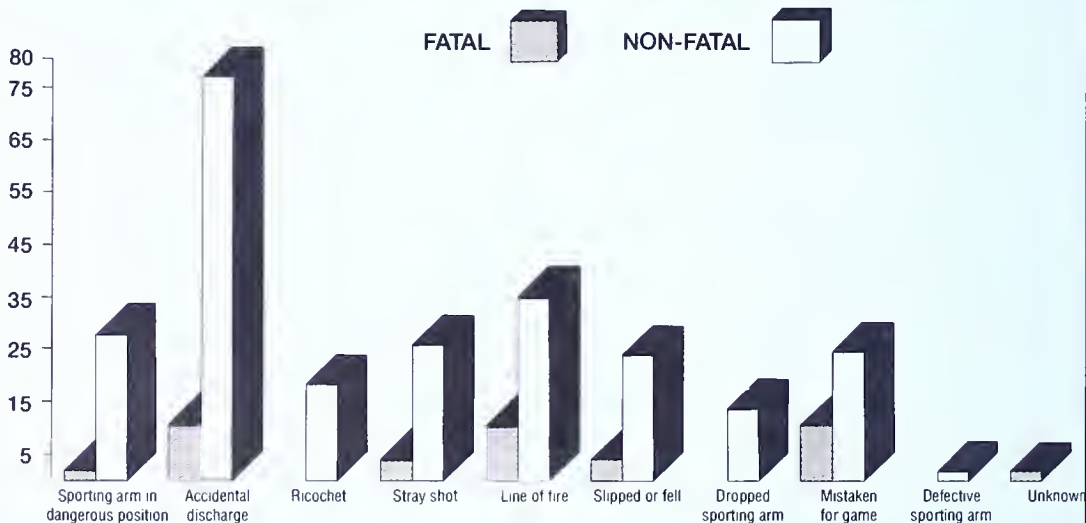
Of the 295 deer hunting accidents, 177 (60 percent) involved one hunter

Annual deer hunting accidents, 1982-1988



EACH YEAR more than a million hunters take to the woods in search of whitetails, and most of them are afield on opening day. Taking the sheer number of sportsmen into account, the frequency of accidents is very low—even lower for fatal mishaps—as shown in the table above. No trend is apparent. The table below shows accidental discharges far and away are the leading cause of hunter injuries. Careless handling of firearms while loading or unloading and hunting with the safety “off” caused a number of those accidents.

Deer hunting accident causes, 1982-1988



accidentally shooting another. Of those, 34 of the injuries were fatal. The remaining 118 accidents (40 percent) were cases in which hunters inflicted accidental injury upon themselves; 11 being fatal. A look at all fatalities shows that 19 of the victims were struck in the head or neck, 17 in the chest and nine in the abdomen or pelvis area.

The age of those who caused the accidents averaged 28.7 years. And as for hunting experience, 115 had more than 10 years, 104 had from five to 10, and 76 had less than five.

In 101 (34 percent) of the accidents, a lever action rifle was involved, while in 85 (29 percent) a bolt action rifle was involved. Shotguns were involved in 27 injuries, muzzleloaders and bows and arrows, 19 each, followed by 15 handgun accidents. Accidental discharge of a firearm was the cause of 115 accidents; 38 of those occurred while hunters were loading or unloading their firearms. Another 36 accidents resulted from ricochets or stray projectiles, and three from defective firearms.

Errors in shooter's judgement caused

22 fatal and 160 nonfatal accidents. Hunters were either mistakenly identified as deer or in the line of another's fire in 93 of those accidents. And of those, 32 victims, 10 being fatalities, were not displaying fluorescent orange when they were shot. Of the victims wearing fluorescent orange when mistaken for game, investigators determined it was not visible to the shooters in all but two cases. In those instances, the safety color was either obscured by dense cover or worn in such a position it could not be seen from the shooter's location. While participating in drives, 27 hunters were misidentified as deer or were in the line of another's fire.

The study team noted that 177 of the 295 accidents involved two parties. In over half (96) the victims and shooters were either relatives or friends, hunting together.

They also found that neither adverse light nor weather conditions greatly contributed to accident causes. Most accidents, 269, took place during daylight hours, while only 26 occurred during periods of limited light or in darkness. Clear weather prevailed at the time of 168 accidents; 64 during overcast conditions; 44, rain; 13, snow; and four, fog. Weather conditions for two accidents were not reported.

Because deer spend much of the daylight hours in wooded habitat, it's not surprising that most hunting and, in turn, hunting accidents took place there, too. A total of 191 (158 nonfatal and 33 fatal) reported during the seven years occurred in woodlands. Other accident sites were fields, 45; roads, 43; vehicles, 14; and marshland, two. Most of the road and vehicle accidents resulted from hunters either loading or unloading their firearms.

The Cure

The team of doctors concluded that considering about a million hunters are afield during deer season, deer hunting is a safe sport and the chances of being involved in a hunting accident are extremely small.

But here they offer some preventive

medicine to help you to be even safer — always hunt defensively and wear fluorescent orange. The more orange, the better you can be seen by other hunters, thus further lowering your chances of becoming an accident victim. Choose safe and responsible hunting partners. Know where they are, and where you are at all times while afield. Be thoroughly familiar with your sporting arm and especially careful where it is pointed.

Refresher Training

Even if you're an experienced hunter, continue your outdoor and safety education. If you never attended a formal hunter-trapper education course, why not do so? And even if you have, certainly a little refresher training isn't a hard pill to swallow.

The doctor's list of accident prevention remedies also includes always treating every firearm as if it were loaded, always keeping the muzzle pointed in a safe direction, and always being sure of your target and what's beyond it before pulling the trigger. A little common sense and good judgment add an extra measure of hunting safety. *(This article was co-authored by Drs. Brotman, Smith, Normington and Norkus.)*

"Nearly half of the hunters killed in the seven deer seasons we studied were not wearing fluorescent orange as required by law."—Dr. Ernest Normington.

"In many cases, you or your hunting partner are your worst enemy in the deer woods."—Dr. Gregory Norkus.

"Hunters should become thoroughly familiar with their firearms."—Dr. Joseph Smith.

"We found that while hunting is a safe sport, there are several things hunters can do to decrease their chances of an accident."—Dr. Sheldon Brotman.



His Name Is Bear

By William Johnson

THE SIGN READ, "Free Puppies, Part Beagle, Pointer, Setter." A child's playpen held two furry black and white puppies that were trying to nap in the fading warmth of the late afternoon sun. A small boy about three years old sat between them, gently petting their heads.

My wife, Doreen, and I had stopped at an orchard market to buy some cider but the puppies outside the front door captured our attention. The attendant came out and informed us there had been five puppies, and that the owner was coming back soon, when the orchard closed, to pick up any that were left. He said his son had been playing with them all afternoon and was getting sadder as their numbers dwindled.

We had moved to northern York County from western Pennsylvania a year earlier, right after graduating from college and getting married. We brought two beagles with us, so the last thing we really needed was another dog. Like most young couples, though, our decisions were often based more on wants than needs. Besides, the pups were awfully cute, and I reasoned that with those blood lines either one might make a good pheasant dog. At the time, 1975, the area offered fantastic pheasant hunting.

We returned home that mid-October Sunday with our cider and the pup with the solid black back. He resembled a little cub so we named him Bear, and before long he was spending more time in our apartment than in the kennel. He quickly became our favorite, achieving that special status many childless young couples give to a pet.

The ensuing year, during dog training season, I took Bear running with the beagles, but he never displayed any hunting instincts. With all the enjoyment he was giving us, however, he

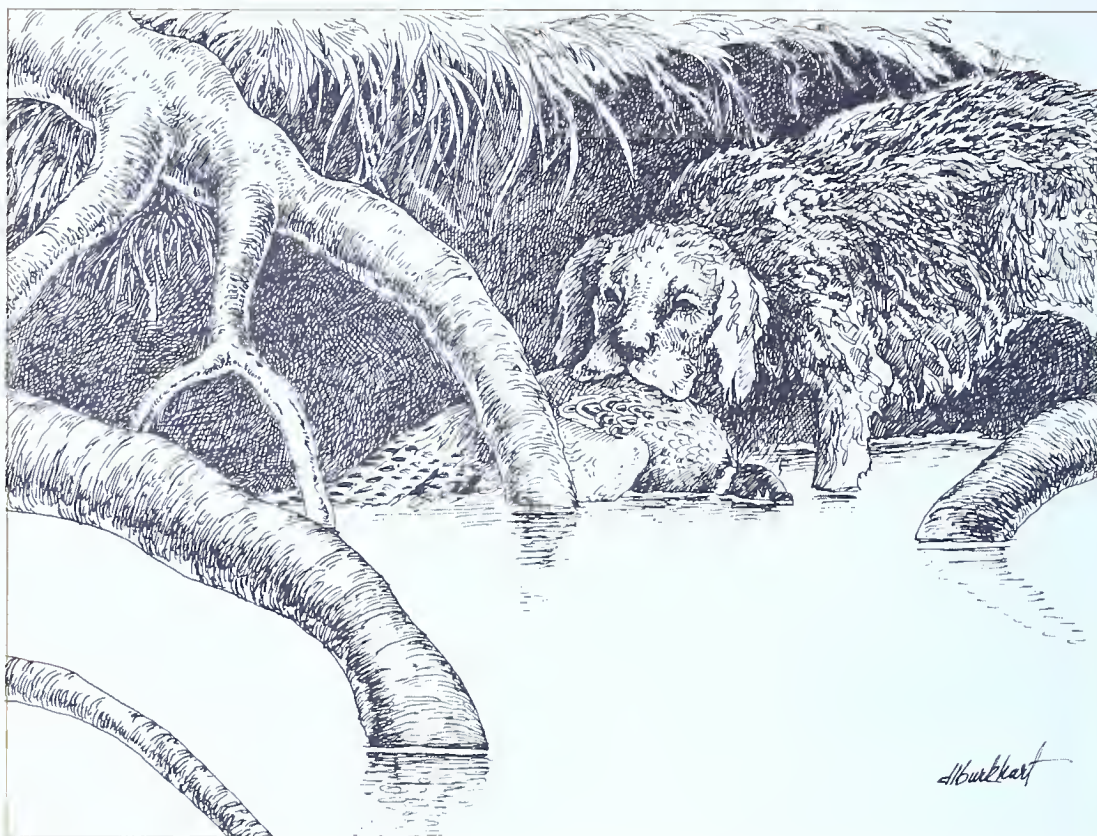
didn't have to hunt to justify his keep. I just figured he'd be a pet.

On opening day of pheasant season Doreen had plans to go shopping. When I went to get the beagles, Bear looked at me with such sad brown eyes that I knew I couldn't leave him alone in the kennel. When I arrived at my uncle's farm and Bear jumped out of the truck a few eyebrows were raised. Bear was only slightly taller than the beagles, but with his bulky body and long hair he resembled a miniature St. Bernard. He looked totally out of place among the beagles and vizslas gathered for the hunt. In response to some good-natured ribbing, I assured everyone that Bear was well behaved and would not get in the way.

At nine o'clock we headed off across a pasture, full of the anticipation that was always present on opening day. In those days it wasn't a question of if a hunter would get two ringnecks, but rather, how soon. The morning's first rooster was taken when he tried to sneak along a fencerow at the end of the pasture. When we entered a field of foxgrass between two strips of corn I knew we would soon be adding to the seemingly never-ending volleys of gunfire coming from the adjoining farms and the game lands across the road.

I was intently watching the beagles when I saw Bear spring into the air as if he was on pogo sticks. He started running down the field, springing above the foxgrass after every few strides. I was so mesmerized watching Bear that when three hens and a rooster flushed in front of him I never even shot. As the shock started wearing off I realized that Bear, springing into the air, had been trying to see what he was scenting.

We left the foxtails and started hunting on a weedy hillside full of briars. The beagles started working hard, and



BEAR HAD BEEN DOWN at the water and kept sticking his nose in it. Finally, he stuck his head totally under and pulled out the rooster from under some tree roots. Apparently the bird had died in the water and was swept under the roots. From that day on I learned to trust Bear, no matter what.

when the older one opened up with a short yap, Bear ran over like a shot. He immediately picked up the scent and took off on a dead run with his tail wagging furiously. I wasn't sure just what was going on, but I knew enough to take off after him.

Bear had gone only about 20 yards before the cockbird realized he wasn't going to outrun the black and white demon on his tail. The bird was about four feet off the ground and had just started his first cackle when the load of No. 5s from my 16-gauge knocked him back to earth. Bear pounced on the still quivering bird and held him until I got there. I had known Bear wouldn't get in the way, but I never suspected he would steal the show.

Five minutes later Bear and I teamed up on a rooster in a weed strip above a pond in the next pasture. Needless to say, when I returned home that night I informed Doreen that we had more than just a pet in Bear, a lot more.

That first day established a scenario that Bear and I would play out in varying formats many times in the years ahead. The scenario consisted of me watching Bear until his bushy tail, which always stood straight up, began wagging furiously. Bear would then take off like a shot, with me trying to keep up. That Bear would take all earthly options away from the pheasant and force it skyward for refuge was a given.

Whether I could keep up, if it was a rooster, and if I could hit it, were the variables. I'm glad Bear happened along when I was young and running regularly. A hunter has to be in good shape to be able to move fast to fully benefit from Bear's hunting style.

Bear was excellent at digging birds out of heavy cover and working them out of cornfields, but it was in the weed fields, running down pheasants that were sneaking out ahead, that he had no equal. He became the best all-

DURING BUCK SEASON I left Bear in the basement when I went out opening morning. When I returned, I found he had chewed up my small game coat, my hunting sweatshirt and some socks. He gave me a dirty look. But when he sniffed the buck I'd shot, his attitude changed completely.

around hunting dog I've ever seen. He would tree all sorts of furbearers, flush grouse and run rabbits. When he was hot on a rabbit he would yip a little, but otherwise he wouldn't make any noise when he was on a scent. I could always tell when he was on a pheasant, just by watching his tail. When he was in his prime, he made the exceptional seem routine. From 1976 to 1983 Bear failed to find only one pheasant that either I, or anyone I was hunting with, knocked down. One incident, however, clearly stands out above all others.

Bear was two years old, and my Uncle Glenn and I were hunting on a vacant farm we had never hunted before. Aunt Diana was with us; she didn't hunt, but she enjoyed walking and watching us.

The fields had been planted in corn, but the pastures hadn't been mowed or grazed for years, so they provided ideal food and cover. In short, the farm was excellent pheasant habitat. We started hunting along a stream gully that ran between two corn fields and had heavy brush on both sides. In the first 40 yards we each got a rooster.

We crossed the road and started working a large overgrown pasture. The stream, which was now on our right, curved in front of us up ahead. We were pushing the cover toward the stream, forming a trap for any birds that were in the area. Glenn was working the heavy cover along the bank, I was about 20 yards to his left, and Diana was the same distance to my left.

Bear worked over in front of Glenn and flushed a pheasant. "Rooster," Glenn yelled above the roar of his 12-gauge. It was a clean miss. The ring-neck quickly picked up speed and angled out in front of me. My gun cracked and feathers flew as his wings folded. I knew he was hit hard, but he didn't take that totally uncontrolled flop which



usually signifies a bird that is DOL (Dead on Landing).

As I hurried forward, Glenn shouted that the bird had landed in a clump of multiflora rose about 10 yards from the stream. Bear beat me to the bushes but kept on going. "I'm sure he's in here," Glenn said as he arrived to help me. The clump was thick and we couldn't find the bird. I kept calling Bear, but he wouldn't come.

"Bear is over here playing in the water," Diana said. "Why don't you get him over there where he could do some good?" Frustrated, I yelled for Bear as I headed for the streambank, fully intending to escort him to the briar patch. As I neared the streambank Diana shouted "Look! I don't believe it!" Just then Bear came over the bank with a dripping wet ringneck. His tail was wagging and he had a look on his face that seemed to say "See, I know what I'm doing."

Diana had told us Bear had been down at the water and kept sticking his nose in it. Finally, he stuck his head totally under and pulled out the rooster from under some tree roots. Apparently, the bird had died in the water and was swept under the roots. From that day on I learned to trust Bear. When a bird was down, no matter what the hunters said or the other dogs did, I stuck with Bear.

Bear and I have had a few misunderstandings over the years but nothing major. Once, during Bear's second season, my dad and his buddy Walt came

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over to do some hunting. Dad and Walt live in the Pittsburgh area, but they used to spend several weeks each small game season at a trailer on my Uncle Glenn's farm. They had one male and three female Brittany spaniels. A week earlier the big male, named Huck, and Bear had gotten into a pretty good scrape, trying to prove to the ladies which one of them was the toughest. I still had a tooth hole in my leg where Huck had nailed me when I tried to break up the fight. Having no desire to accumulate additional perforations, I decided to leave Bear in the house, something I had done many times before with no problems.

This time, though, when we returned several hours later, I saw what I thought

was my marriage dissolving right before my eyes. Bear had ripped all the draperies off the living room windows, straightening most of the curtain hooks and bending the curtain rods in the process. The draperies themselves were much worse for wear.

Bear was not the least bit remorseful. He walked up to me, firmly planted his legs, and gave me a most contemptuous glare. After exchanging glances, Dad and Walt, who were going to stay for refreshments and to see Doreen when she returned from work, suddenly decided they had to leave right away because their dogs looked hungry.

Dad had his ship sunk in the English Channel and Walt had fought the Japanese in the jungles of the South Pacific, but neither of them wanted to be around when Doreen returned home. As they were leaving, Dad put his hand on my shoulder and said, "Good luck," giving me a look that made me feel like he thought he'd never see me again. I was left to face my wife alone and with a dog that held me in utter contempt.

I don't know if it was her love for me, her love for Bear, or the fact that she never liked the draperies, but Doreen forgave us, and we lived to hunt again. Doreen even recognized the humor in the situation—but not until several years later.

When buck season came that year, I left Bear in the basement while I went out on opening morning. When I came back to the house with a buck later that day, I went to let Bear out. He had chewed up a sleeve of my small game coat, my hunting sweatshirt and some socks, and he had the same look he had had when I left him during small game season. When I let him out, though, Bear ran up and sniffed the buck, and then his whole demeanor suddenly changed. He came over to me with a sheepish grin on his face, wagging his tail and wanting to be petted.

After those incidents Bear and I reached an understanding. I would never leave him when I went small game hunting, but during deer season Bear would stay in the basement and

behave. Bear still barks and wags his tail when he sees me in small game clothes and carrying a shotgun, but when I'm in my deer coat and have my rifle, he pays no attention.

His hunting skills weren't the only thing that set Bear apart from other dogs. His approach to hunting was unique. He wasn't driven to hunt like most hunting dogs. From the time we bought our home on the mountain, when Bear was two years old, he was never penned or put on a leash, but he never wandered off to hunt by himself. When I took him hunting, I didn't carry a leash because I could call him off any trail. If I quit hunting and walked back to the truck or house, he would follow without me calling, even if others were still hunting. He would never hunt for anyone else. Only when I picked up a shotgun would his hunting instincts kick in.

Bear is almost 15 years old now, and I now depend on a young Labrador to put birds in the bag. The spring in Bear's legs that enabled him to jump above the foxgrass is long gone. He hasn't heard my voice, or anything else for that matter, for years. A cataract has blinded him in his one eye and his nose is not near what it used to be. He still

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makes a big fuss, though, when I pick up the shotgun, and he follows along when I go hunting. I realize I've probably shot my last ringneck over him, but just having him along greatly enriches the hunt. If I have to slow down once in a while to enable him to catch up, I don't mind at all.

Stories

When my grandfather was still alive he used to tell me hunting stories. The only dog he ever mentioned was a hound named Spot that he and his brothers hunted with when they were growing up on a farm near Everett. In his 60 some years of hunting he owned and hunted with many good dogs, but he told stories of only Spot. I hope someday to have a grandson to tell hunting stories to. I already know the stories I'll tell. I also know the name of the dog that will be in those stories. His name is Bear.

AT THE national Wild Turkey Federation's national convention in Little Rock, AR, C. Thomas Baldrige, right, accepted the L.A. Dixon, Jr., Memorial Outstanding Chapter award for Pennsylvania. Baldrige was state chapter president. Not only was the state chapter best in the country, but Pennsylvania's chapter No. 1 was also recognized as the top local organization. Baldrige himself earned a service award for volunteer chapter leaders. NWTF's Skip Sanderson presented the state award.





FALCONERS Barry Hill, left, and Michael Kuriga, both of South Williamsport, are two of the 100 individuals licensed to practice the sport of falconry in Pennsylvania. Hill prepares to exercise his female falcon; master falconer Kuriga holds his male goshawk, Gandalf. Falconers pursue rabbits, pheasants and other small game.

Falconry

Once known as the “Sport of Kings,” today it’s practiced by a few dedicated individuals.

By C.J. Marshall

ABOUT 100 Pennsylvanians are licensed to practice a very special form of hunting.

With few exceptions, all of us, of course, are entitled to get a license permitting us to hunt with a gun or go after game with a bow. And we can learn a lot about trapping through books.

Many people like to hunt with dogs. But whereas dogs are usually used to retrieve or locate the quarry, there is a sport in which the man does the locating and the animal does the hunting. This particular sport requires the participant to spend two years learning the craft in apprenticeship from another.

The sport is falconing.

During the Middle Ages, falconing—the use of birds of prey to hunt small game—was known as the “Sport of Kings.” Only kings and upper nobility were permitted to hunt with raptors. After the French Revolution, however, the sport became available to everyone. But because falconing remains a highly specialized skill, it is still enjoyed only by a small group of enthusiasts.

Two such people, Barry Hill and Michael Kuriga, South Williamsport, are licensed falconers. They catch and raise birds of prey for the purpose of hunting small game.

SOME FALCONERS choose to trap, under permit, wild birds with which to hunt. Others purchase birds born in captivity, which enables falconers to hunt with species difficult to trap. Captive-bred birds can never be released into the wild.

"We're licensed by both the state and federal government," explains Kuriga, who works with a goshawk named Gandalf. "In falconing, you start out as an apprentice in which you work with a licensed falconer." In that time, an apprentice learns how to hand and care for his bird, as well as how to train it to hunt. "Barry worked with me until he became a general falconer," Kuriga says. A person stays in the general category for five years, at which time he may advance into the master class.

"The only way to become a falconer is to serve an apprenticeship," Hill says. "I could have read the equivalent of three or four volumes on the subject and would have been a total failure without the personal training. Such training is very important because, without it, there are subtle mistakes a person makes when training his bird. You have to learn how to hand a new [untrained] bird, how to properly feed it," he says.

"Birds of prey, such as hawks and falcons, have a bad reputation for destroying farm and game animals," Kuriga says. "In reality, hawks and falcons kill few such animals."

"We have to subject our birds to behavior conditioning," explains Hill, who owns a 6-month-old female falcon he purchased from a Minnesota company. "Normally, they go after mice. We have to teach them to go after the game we want, pheasants and rabbits.

"The birds are trained exclusively through a system of rewards," Hill says. "A bird cannot be punished into doing something. A bird does not tolerate punishment like a dog can. That's because a bird is not a social animal like a dog. If a falconer were to punish a bird, that bird would never trust him again."

According to Hill, there are two ways a falconer can get a bird for training. The first is to trap a wild bird along a

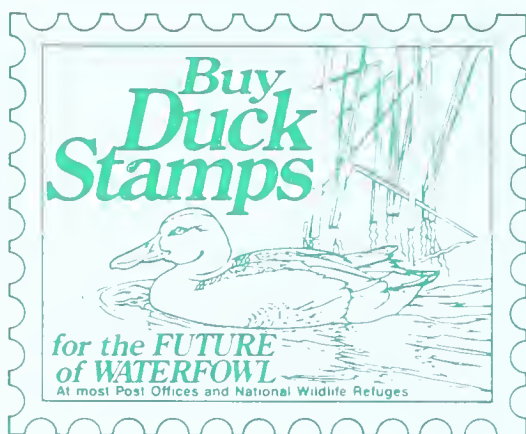


major migration route, and such a route runs through Pennsylvania. The only trapped birds a falconer is allowed to keep, Hill explains, are "passage birds." Hill says these are young birds making their first migrations and have not gone through their first winter.

"The reason we're allowed to keep passage birds is because more than 50 percent of them are going to die before spring," Hill says. "We're not permitted to keep older birds because they're considered breeding stock. In the wild, a first passage bird has a 60 percent mortality rate. Under the care of a falconer, however, that bird has a 95 percent chance of making it to next spring. By the next winter, that bird will be well experienced, having hunted and killed game in the wild."

Hill says many falconers prefer to work with wild birds because they are much easier to train. It usually takes about four weeks of daily training, a couple hours a day, to get a wild bird ready for hunting.

The second way a falconer can obtain birds is by purchasing ones born in captivity. By contrast, those birds take



three to four months to train properly. Most falconers prefer to trap and train a bird because it's easier. Some falconers purchase their birds because it provides them with an opportunity to work with species normally difficult to trap.

Each type of bird has its own particular hunting style. A hawk will hunt below the tree lines, flying from a falconer's hand after such game as pheasants or rabbits. A falcon, however, generally preys on ducks and pigeons, flying as high as 2,000 feet in the process.

Wild Bird Advantage

Another difference between wild and captive-bred birds, according to Hill, is that a wild hawk or falcon can be released into the wilds if the falconer believes such a move is necessary. "We're allowed to hunt with our birds only during certain times of the year," Hill says. "During the summer, for example, when we're not allowed to hunt, the bird simply sits in its cage, molting." Because a bird must be cared for every day, there are instances when a falconer finds it necessary to release the bird, despite the fact he's spent so much time training it.

By contrast, however, a captive-bred bird can never be released. Hill says he will be taking care of his falcon every day of the year for about the next 12 years. The only way he could get rid of it would be to sell it to another falconer.

"It takes a strong commitment to be a falconer," Hill says. "You have to be willing to take care of your bird 365 days a year. This year, I had to take not only

my falcon along, when I went on vacation, but also 16 [live] pigeons for food."

There's much more to falconing than simply catching and training a bird. A person needs permits from the state and federal governments to keep a bird of prey. The falconer must construct and maintain a large frame building, known as a mew, to provide his birds with a weathering area. "Even if you keep your bird in the house at all times, the law says you must have that building on your property," Hill says. And the mew cannot be simply a large cage; it must be built to specifications set by law.

Another piece of equipment a falconer must have is a scale accurate to a half-ounce. The reason for this, Hill explains, is to prevent rapid weight loss. Hill says a bird's metabolism is so high that it is possible for a bird to go from healthy to starving in as little as three days.

Other equipment includes certified perches for the birds to rest on, bells to fasten around a bird's leg to permit the falconer to track his bird by sound, a gauntlet of heavy material to allow a bird to rest on the falconer's arm without sinking its claws into bare flesh, and hoods. "Every piece of equipment a falconer uses is handmade," Hill says. "He either learns to make the equipment himself or he purchases it from another falconer."

Hill says a falconer must handle his bird every day "or it reverts to simply being a wild bird in a cage. A person must be willing to invest an average of an hour of his time per day in handling his bird."

The falconer must also be willing to track and stay by the bird if it becomes impossible to retrieve at the end of the day. There have been times when Hill has had to sleep under a tree in which his bird had settled into for the night. According to Hill, once a falcon or hawk roosts for the night it won't move until morning.

"The time a bird likes to hunt is right before sunset," Hill says. "There are times when you haven't gotten any

game all day and you try one more time because you know the bird is going to be giving it his best effort; he's hungry and he knows it's his last chance to get anything to eat. If for some reason the bird decides to roost in a tree after the sun has gone down you have to wait there all night to make sure nothing happens to the bird.

"It doesn't matter if you have a job; you must wait there all night to protect that bird. Then, come morning, 15 minutes after sunrise, you simply put out your arm and the bird will hop onto it and you can go home. That's one of the reasons why a falconer will invest \$1,500 in telemetry equipment; it can be a big help if you lose sight of a bird and have to track it," Hill says.

When a falconer hunts, it is generally not to get food. "It's considered a good day if you come home with your bird," Kuriga explains. "Generally," Hill adds, "a proficient bird of prey will probably make a strike only one out of 10 times."

Falconers generally don't eat what their birds catch, although there's no rule prohibiting it. Falconers normally use game to feed their birds, one rabbit providing four to five days of food. Hill says a falconer will ordinarily bring home no more than a dozen small game animals per year.

There are times when Hill and other falconers must suffer some physical pain to enjoy their hobby.

"I went out one night to give my bird more food—I wasn't certain I'd fed it enough," Hill explains. "Remember, it takes only three days for a bird to starve, so it's important that it be given enough food every day. Anyway, I stuck my hand in with the food, and I'd forgotten to take the time to put on my glove."

Hill's bird sank its claws into his hand

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and wouldn't let go. Under those circumstances the only thing a falconer can do is bear the pain until the bird decides to release him. "I sank down to my knees because of the pain," he says, of the incident. "You can't push the bird away or try to shake it off because then it will simply grab you harder. The only thing you can do is hang on until the bird relaxes and lets go.

"There are inherent hazards for the birds as well," Hill says. "A falcon can strike its prey by diving at it at over 200 miles per hour. If a falcon misses its target it could dislocate a wing or lose three or four flight feathers. If that happens it can't hunt; and like I said it takes only three days to go from a healthy bird to a starving bird.

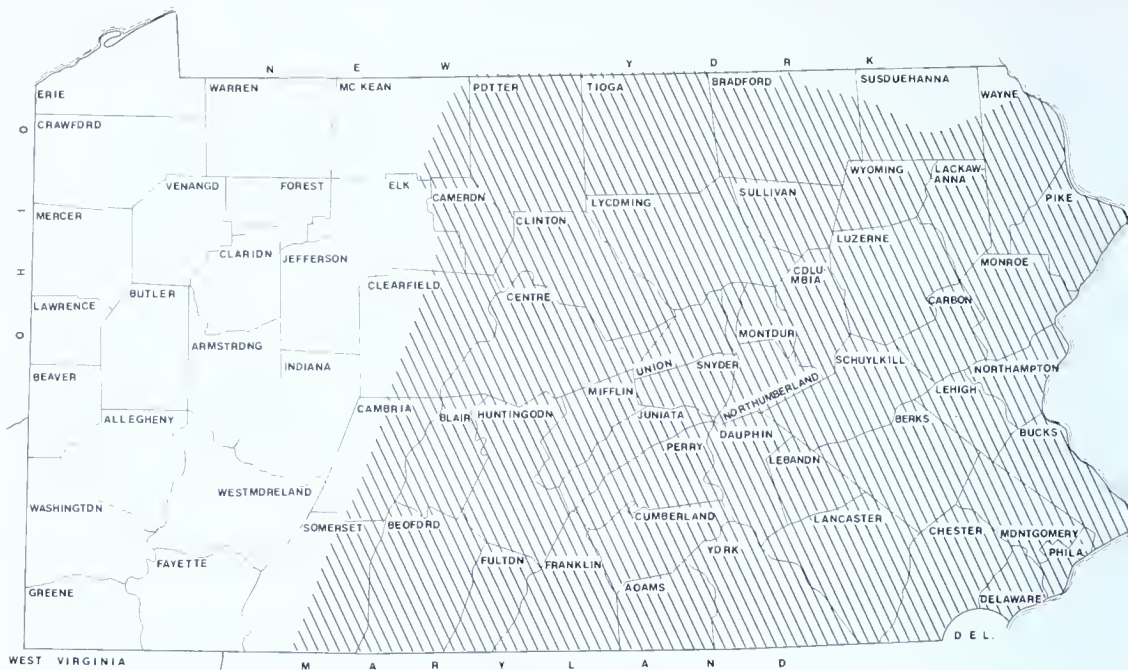
"In falconing, there's a partnership between man and bird," he says. "The bird allows you to watch it in flight as it hunts." As he tells it, that's the real thrill of hunting with a falcon, and adds that there's a great deal of difference in watching a rabbit being hunted with a gun and watching that same rabbit being hunted by a hawk. "In return, the man guarantees that the bird will survive through its first winter. When it's time to cut the bird loose, it will live approximately 12 years in the wilds.

"In falconing, the bird is given a choice every day it is released, and that is whether to leave or to return," Hill says. "There's no way, once I release my falcon, to get it to return; it must want to come back to me."

Thoughts While Walking

What we anticipate seldom occurs; what we least expected generally happens.

— Benjamin Disraeli



THE INCIDENCE OF RABID ANIMALS is on the rise across much of the state. The virus is progressing northward, eastward and slightly westward. Following are county figures for rabid animals (all species): Adams, 7; Bedford, 7; Berks, 6; Blair, 6; Bradford, 13; Bucks, 54; Cambria, 4; Cameron, 1; Carbon, 4; Centre, 24; Chester, 8; Clearfield, 5; Clinton, 2; Columbia, 12; Cumberland, 23; Dauphin, 7; Delaware, 8; Erie, 1; Franklin, 10; Fulton, 4; Huntingdon, 7; Juniata, 5; Lackawanna, 6; Lancaster, 7; Lebanon, 6; Lehigh, 8; Luzerne, 11; Lycoming, 6; McKean, 3; Mifflin, 4; Monroe, 39; Montgomery, 31; Montour, 1; Northampton, 47; Northumberland, 1; Perry, 17; Philadelphia, 69; Pike, 9; Potter, 11; Schuylkill, 3; Snyder, 7; Somerset, 1; Sullivan, 5; Susquehanna, 2; Tioga, 53; Union, 2; Wayne, 21; Westmoreland, 1; Wyoming, 2; and York, 20. The state's 1990 total was 611 cases.

Rabies Update

By Larry Lampietro

THE NUMBER of confirmed rabies cases in Pennsylvania last year was 611, less than the 702 found in 1989, but still high. This number is not the actual number of rabies cases in the state, only an indicator. Due to the high cost of testing, the only animals normally tested are those that have bitten or scratched people, pets or livestock. This rigid criteria for testing not only holds down costs but also gives a better indication of how the rabies problem is changing from year to year.

Comparing confirmed cases from past years with 1990 indicates the rabies virus has been progressing northward and eastward and slightly westward from its first appearance in the southcentral counties in 1983. After almost eight years, cases are still appearing in the southern counties, de-

spite the greatly reduced raccoon, skunk and fox populations.

Comparing numbers with past years also clearly shows the state law requiring dogs and cats to be vaccinated is working. No rabid dogs were found in 1990. However, once again, a high number of cats contacted rabies because a great number of cats are not vaccinated because so-called "farm cats" have been exempted. Livestock vaccination has also kept the number of cases low in that group through the years.

Research is continuing on a method to vaccinate raccoons (the chief carrier of rabies in our state) by means of an oral bait vaccine. Testing was done on an island off the Delmarva Peninsula in 1990 with success. According to Dr. Charles Rupprecht of the Wistar Institute, the next step is to get federal

safety approval to try this vaccine on a state game lands in Pennsylvania. It's hoped this can be done soon, before the spread of rabies goes even farther.

In the meantime, our best defense is to vaccinate pets and livestock, and avoid suspect animals. These include not just raccoons, but also skunks, foxes, bats and any other warm-blooded animal that's acting strangely. Such a temptation is especially strong in the spring as people find nests of cute, cuddly animals. **LEAVE THEM ALONE!** If you are bitten or scratched by any wild animal, the only way to find out if it has rabies is to kill it and test the brain. Handling wildlife could mean a death sentence to the animals or possibly you.

If a dog or cat bites somebody, however, it does not have to be killed for testing, it must only be quarantined. That's because a dog or cat can live only a few days after the rabies virus starts to appear in its saliva. If the dog or cat is still alive 10 days after the bite, the saliva could not have contained rabies virus at the time of the bite. The person bitten does not have to undergo treatment. If the animal does die in that 10-day period, its brain should be tested to determine if rabies was the cause.

Treatment, which now consists of a 5-shot series of rabies vaccine and one shot of Rabies Immuno Globulin, given over a one-month period is 100 percent effective. Rabies is a progressing disease that moves along the nerves. This gives doctors plenty of time for testing. In most cases, bitten individuals can

wait the 10-day quarantine period before treatment should begin.

A large percentage of people who have received rabies vaccination over the past years have done so needlessly. The reasons are many. Some fault lies with the doctors and veterinarians, some with the patients. Remember, you are responsible for your health. If you feel a doctor is misinformed or is over-reacting to your situation, get another opinion.

If you are bitten or scratched by a suspect animal, or saliva or brain material has entered your eyes, nose or an open cut, and quarantine is not an option, you should have the animal tested. The test involves using areas of the animal's brain where the rabies virus is likely to be found. If rabies is found, it will most likely be in the saliva gland.

If you must kill the animal, do not damage the head. Place the whole small animal, or the head of a large animal, in a plastic bag and keep it refrigerated or on ice. The animal should then be submitted to the laboratory through a veterinarian, physician, wildlife officer, animal control officer, county humane society, or county health department. If you have a justifiable reason for having an animal tested, it will be submitted to one of the laboratories throughout the state. A shipment service is provided by Department of Agriculture district offices if needed. Results are usually available within six to 24 hours of arrival at the laboratory.

Cover Painting by Doug Pifer

The wood thrush, a common breeding resident in Pennsylvania, is but one of many songbirds and other nongame species that resides here. Nongame wildlife affords everyone year-round enjoyment; their sights and sounds make tramping through the woods and fields more pleasurable. Each of us can support wildlife in many ways. Putting out food in birdfeeders and building nest boxes is a great start. The agency's *Woodworking for Wildlife* publication (available from the Commission's Harrisburg headquarters for \$3, delivered) offers proven detailed plans for building such devices. Another way is to make contributions to the state's Wild Resource Conservation Fund (P.O. Box 1467, Harrisburg, PA 17105-1467), which supports nongame research programs and depends solely on voluntary contributions.

A Woodchucker's Odyssey

By Charles E. Travis, Jr.

SERIOUS WOODCHUCK hunters, it seems, are always on the lookout for something a little better than what they may currently be shooting. A dedicated shooter may have a dozen highly accurate rifles in the rack, but the latest "hot shot" on the scene just has to be the one he needs. After decades of 224 caliber cartridges, the 170 came to light.

Many years ago, an acquaintance of mine, the late Charles S. Landis (CS), noted rifleman and firearms writer, was working with P.O. Ackley based in Colorado and Charlie Parkinson of London, Ontario. CS helped Parkinson with the cartridge design, and Ackley's shop drilled and rifled the barrels; Parkinson chambered and fitted them to the actions.

Best Choice

CS and Parkinson were trying to develop a medium range rifle (200 to 250 yards) with a mild report. They were using the R-2 Lovell case necked down to .170 with a 15° shoulder. After quite a bit of testing, CS suggested a 28° shoulder. Parkinson rechambered both his and CS's rifles, and after testing finally concluded that that was the best choice.

The cartridge was named the 170 Landis Woodsman. A relatively light load of DuPont 4320 and the Sisk 25-grain bullet was ultimately found to be a good all around load. Earlier, CS had designed a 170 for Ackley based on the 250-3000 case, and Ackley had chronographed it at well over 4,000 fps. The report, however, was too sharp to be used much in the settled districts here in the East, and as far as I know nothing more ever came of it.

That year the National Bench Rest matches were coming up over the Labor Day weekend at the Pine Tree Rifle Club outside Johnstown, NY.

Slated to be there were four or five fellows from Ontario who had the first 170s and who had been extensively testing them on woodchucks. They didn't want to go through the red tape of bringing rifles through customs, though, so CS brought his 170 Winchester HiWall single-shot rifle and some cartridges to show the chuck hunters here in the States what had been accomplished. The Canadians and CS would provide information to anyone interested in the performance of the 170. CS and the men from Ontario collectively had taken more than a thousand woodchucks and a number of crows during the previous four years while testing the cartridge.

We spent three days at the matches, visiting with all the other riflemen. I had brought along my Pennsylvania hunting license, so on the way home, after crossing back into Pennsylvania, we began looking for a place where I could try the 170 on woodchucks.

Sure enough, we found a field with several chucks out feeding. I pulled into the nearest farm house and asked the woman who answered the door if she owned the field and whether she'd object to me shooting a few woodchucks. Yes, she and her husband owned the field and yes, they would be more than happy for me to shoot all the woodchucks I wanted. I explained that we were just traveling through, that we lived 200 miles away, but that I would be glad to take her name and address and make arrangements to come up the next summer.

At the lady's suggestion we left the car by the barn and, taking the rifle, binoculars and spotting scope, walked up a tractor lane to the field where we had seen the chucks. After walking about 300 yards we came to the field. Looking it over, from the thick cover of some sassafras saplings growing in an





In the summer, up to 50% of the water Americans use goes to outdoor needs such as watering lawns. To prevent excess evaporation, water early or late in the day. Or, better yet, replace grass with ground cover, shrubs, and trees to save water AND attract wildlife.

FOR MORE CONSERVATION TIPS AND INFORMATION, WRITE FOR NWF'S CITIZEN ACTION GUIDE, NATIONAL WILDLIFE FEDERATION, EARTH DAY PROGRAMS, 1400 16TH STREET NW, WASHINGTON, DC 20036-2266



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old fencerow, we scanned three sides of the field. It was about 40 acres, we figured, enclosed by stone walls.

Large dirt mounds were visible in a great many places.

None in View

At the moment, however, no woodchucks were in view. Situated on a knoll, we were in an ideal spot to see the entire field, including the edges of all the stone walls. Sitting down and slipping my arm into the rifle sling, I tightened the keeper and began to search the field edges with binoculars while CS got comfortable behind the spotting scope. It wasn't long before we were in business.

Just as I focused on one of the dens, a

large chuck emerged. Without hesitating he waddled out into the field and began to feed. We continued to glass the area for a few minutes and soon had five chucks in view. They were all big and fat. From their size and the fact they were not the least bit wary, and also because the size of the mounds of dirt around the dens, it was evident the farm hadn't seen any serious shooting for a long, long time. Figuring our moment of truth had arrived, I located a chuck at about 150 yards and slipped into the prone position as CS watched through the spotting scope.

Looking through the 1¼-inch 10x Fecker, I positioned the Lee Dot to deliver the bullet to the butt of the chuck's ear. As the set trigger was touched, the chuck just slumped forward. The thing that amazed me was that none of the other chucks ran for cover. The rifle's mild report was of no consequence.

Picking up another round from the several I had placed on a bandanna on the ground beside me, I reloaded, while squirming around to my left a bit to get lined up on the next chuck before it headed underground. This one was about 25 or 30 yards farther out and offered the same choice of bullet placement. After the shot I lay there watching through the scope as his tail came up, fluffed out and waved—a sure sign of a solid hit.

After taking that second chuck we noticed that the remaining ones had disappeared. Perhaps they had their fill of the vegetation they were feeding on or maybe they figured something wasn't right in their hay field. In 20 minutes or so, in another part of the field, chucks started coming out to feed. Two were big roly-poly ones and several were good-size young of the year. CS had been slowly scanning along the stone walls, where most of the dens were located, and found a chuck of alderman proportions sitting ramrod straight about 250 yards away. After getting directions to the intended target, I found him facing the open field and, of course, us.

AFTER TAKING a couple groundhogs, we went to pick them up and check the performance of our bullets. We then carried the chucks back to the barn, and the farmer said he would give them to a neighbor who had a fox farm.

Its position offered a good opportunity to place a bullet through the neck and spine for an instant kill. Watching him through the scope for a moment as the Lee Dot settled into place, I touched the set trigger and then watched as he toppled off his mound and rolled down a small bank. We took another chuck a short while later, at about 165 yards, then went to pick up the animals and check the performance of the 25-grain Sisk bullets.

I was impressed. The 170 Landis Woodsman cartridge had performed well, especially on the one taken with the frontal shot. We carried the chucks back to the barn, and the farmer said he would give them to a neighbor who had a fox farm. After visiting briefly with the family and making plans to come up the next summer, we started homeward.

While hardly of any importance, those woodchucks were probably the first ever to be taken in Pennsylvania with the 170 cartridge. At that time it was strictly a wildcat still in the experimental stage. Since then, of course, it has been elevated to commercial status by Remington.

I never got that enthusiastic about the 170, though, mainly due to its poor performance in strong wind, such as those experienced while shooting crows during the winter months. Rifles shooting 224-caliber bullets weighing 50 or 55 grains cut our number of misses way down. Also, the 224 cartridges were a lot easier to reload; the tiny throat of the 170 case was, at times, a chore to work with.

Also, a special cleaning rod had to be made for the 170 bore, along with special loading dies, etc. I had all kinds of dies for 224 cartridges, so the addition of another rifle just didn't seem to justify the expense at that time—especially when it couldn't do anything else the others in the rack did just as well or better. The word I get from some



modern-day shooters of the 17 caliber is that they scrub the bore after 8 or 10 shots, due to bullet jacket fouling of the bore. That wouldn't go over too well in my book, but to each his own.

Harvests

Late the next June I received word from a farmer that his alfalfa and timothy fields were being harvested and that the wheat fields would be next. Early the next morning I left home with three rifles. One was an R2 Lovell on a Winchester HiWall by Charlie Johnson. That rifle had a single set trigger. Another was a 22-250 on a 98 Mauser action with double set triggers, and the third was a 257 Remington Improved, also on a 98 Mauser action, fitted with a Mashburn trigger.

That evening after supper I was checking the edges of the same field where I had shot the chucks with the 170 Landis Woodsman the year before. Seated beside me was Mike, the young son of my host, who was doing his best to find the first chuck of the evening. I knew the ranges in the field were mostly under 275 yards, so the R2 Lovell was taken; the 1½-inch 12x Fecker



with Lee Dot was mounted on it and the load was a dose of DuPont 4198 and the 50-grain Sisk bullet.

We didn't wait long before the first chuck showed up, about 150 yards away. After Mike found it in his binoculars I told him we would wait until a couple more appeared. A few minutes later we had four chucks in sight. Mike by this time was really anxious; he wanted to hear that rifle crack. I settled in, and as the Lee Dot came into position I touched off a round. The chuck dropped at the shot as the bullet found its mark. Mike was all for going to retrieve the animal, but I convinced him to wait until we had a few more. As it turned out, by the time the sun was setting, we had to make a couple of carrying trips. The owner of the fox farm was happy to hear of the fresh supply of food for his animals.

Timothy Fields

The next day I went to another area, where the owner had two large, freshly cut timothy fields. They offered shots from three different spots. Some could go up to 400 yards, plenty at 300 or so, and there were many opportunities between 200 and 300 yards. Mike had chores to do, so I went alone, taking the other two rifles.

The 22-250 was John Buhmiller's version of the 22 Varminter. Its target-weight barrel was topped with a Lyman Super Target Spot 12x scope with Lee Dot reticle. The load was DuPont 4320, topped with a graphite wad in F.A. brass made from '06 cases; the bullet was my own 52-grainer with a tiny hollow point made in RCBS dies.

The 257 Improved was Al Hoyer's version of this cartridge (expanded body and sharp shoulder). Its medium heavy Sukalle barrel was topped with a 10x Lyman Jr. Target Spot in Unertl mounts and had a Lee Dot reticle. The loading consisted of 4350 with a 100-grain Sierra soft point bullet in Remington brass. Sometimes I use the 117-grain spitzer boattail Sierra. While I feel that the various 22 centerfires are the ultimate woodchuck caliber, I do enjoy shooting this 257 Improved.

The fields I was heading for this day were truly mountain meadows with stone walls along the ridge (this area is full of stone walls). Parking my truck and taking the 22-250 and a small deer-skin bag of ammo, plus the binoculars, I set up where a number of dens could be watched. The glasses revealed a large chuck sunning itself on a small boulder about 300 yards away. I continued with the glasses and found four more at various ranges, all well over 250 yards.

Deciding to try for the one on the rock, I settled into the sling, closed the bolt and set the trigger. Placing the Lee Dot right where I wanted it, I pressed the trigger. As the report died away, the chuck rolled off the far side of the boulder. About 50 yards farther out, another chuck sat erect, facing away. Placing the bottom of the Lee Dot between its ears, I touched the set trigger again.

Several more were collected from that field before I picked them up and then returned to my truck for a couple sandwiches and some homemade root beer Mike's mother had packed for me. About an hour or so later I drove to the other field at the far side of the ridge overlooking a valley covered with hardwood timber.

While I was sitting there in the shade, backed up against a big rock, glassing the field, I could hear gray squirrels barking in the timber below. From all the sounds, it was obvious the area held a good population of gray squirrels too, which got me to thinking about my 22 rimfire Ballard rifle, with double set triggers, that I use for squir-

THE GLASSES revealed a large chuck sunning itself on a small boulder about 300 yards away. I continued with the glasses and found four more at various ranges, all well over 250 yards. Deciding to try for the one on the rock, I settled into the sling, closed the bolt and set the trigger.

rel hunting—my other favorite rifle sport.

It wasn't long before the chucks came out to feed. This time the 257 Improved was lying across my lap. I waited until five or six of them were in sight before I settled down to get busy. One was a little more than 300 yards away. As he sat up the Lee Dot came into position for a head shot, the trigger was squeezed, and the chuck dropped. The report bouncing off ridges sent the other chucks running, but none of them went very far. Maybe they thought they had heard a clap of thunder. In the next four hours, anyway, several more were taken. Then came pick up time and then it was back to home base for supper. It was also time to call the fox farm owner again.



I ended up spending seven days in the area. I hunted woodchucks on six farms, burned up a fair amount of ammo, met some wonderful people and had a grand time, too. Did someone ask how many chucks I got? Shucks, you wouldn't believe me anyhow. I had a difficult time believing it myself.



A BLIGHT resistant chestnut tree was recently donated to the Game Commission by the Pennsylvania Chapter of the American Wild Turkey Society, represented here by AWTS affiliate president Tony Magnetti, right, and western vice president Chuck Mason. The efforts of the AWTS to introduce the blight resistant chestnut to Penn's Woods have been outstanding (see January, p. 39), but much more needs to be done. For information on how you can get involved, send a stamped, self-addressed envelope to "Operation Chestnut," 6231 Hocker Drive, Harrisburg, PA 17111-3334.

Leave 'Em Alone

BRADFORD COUNTY—At this time of year, young wildlife is abundant, and each year about this time WCOs make the same plea: Please leave wild animals alone. There were 12 confirmed rabies cases in this county last year, and that number could rise if our warnings are ignored. For your safety and theirs, please don't disturb wild animals.—WCO Rick Larnerd, Warren Center.



On A Silver Platter

"If arrests ever came any easier," I told a group of fellow officers, "violators would be running up to my vehicle, asking to be arrested." That very night, while assisting WCO Doug Carney, I was investigating a report of shots being fired. I had stopped along the road to read the name on a mailbox when a man jumped inside my vehicle. It's impossible to describe the expression on his face when he saw my uniform. It seems the individual had been dropped off by his buddies to look for a deer they had shot at earlier that evening, and I had just happened to stop at their pre-arranged pickup point—where the suspect mistook me for his ride. His partners, likewise, were surprised when they arrived to retrieve their friend.—LMO Barry S. Zaffuto, Ebensburg.

Short Month, Too

COLUMBIA COUNTY—Just because hunting season ends doesn't mean our work is done. Here's a sampling of some of my February activities: evaluated my nine deputies; prosecuted two cases in district court; delivered nearly 200 roadkilled deer hides to the region office for sale; presented a bear program to a local church group; investigated three violations from December; picked up hunting license applications from issuing agents; assisted and qualified on winter firearms training; disposed of 12 roadkilled deer; taught game law at a hunter-ed course; picked up tools from farmers who received deer fencing; served three warrants on violators who failed to respond to citations; and helped set up a display at Columbia Mall. Of course there were other, more mundane duties to fill my days. But before you get the idea that my job entails more than its fair share of drudgery, consider this: During my trips through game lands in February I saw a flock of turkeys, several grouse, a goshawk, a rough-legged hawk, two northern harriers, an immature bald eagle and a snowy owl.—WCO George A. Wilcox, Millville.

And Hungry, Too

BLAIR COUNTY—Our regional office has mounted golden and bald eagles I occasionally use in exhibits. The birds ride on the passenger seat when I travel. More than once I've enjoyed people's reactions when I pass them. One fellow stayed alongside me on a four-lane highway, gawking at the mounts. I surreptitiously reached over and gave the birds a little wiggle. I couldn't hear him, but I could read the man's lips as he mouthed, "They're alive! They're alive!"—WCO Steve Kleiner, Altoona.

Flavor Requires Care

CAMERON COUNTY—The southern half of the county experienced heavy gypsy moth defoliation last year, resulting in a low mast crop. In the northern half, however, food conditions were fairly normal. Successful deer hunters from the south remarked how strong and wild tasting their venison was. I suspect the lack of acorns caused deer in the southern portion to begin browsing earlier, perhaps contributing to the gamey flavor. In any case, hunters should remember that prompt and proper field care will always result in better flavor at the table.—WCO Joe Carlos, Driftwood.

Worthwhile Project

More than 60 million people in this country feed wild birds. It's a form of wildlife-oriented recreation everyone can enjoy, no matter their age or health. Probably every nursing or retirement home in your area could use a feeder, even if they already have one in place, and building one and keeping it supplied with feed will provide a lot of enjoyment for our elderly citizens.—LMO R.B. Belding, Waynesburg.

Challenging And Rewarding

LANCASTER COUNTY—Best of luck to the new WCO trainees as they embark on a career in wildlife conservation. The job has many rewards and challenges. One of the greatest challenges is writing a Field Note each month, and one of the greatest rewards is going to pick up a roadkilled deer—only to find it gone.—WCO Dennis L. Neideigh, Salunga.

Staying Informed

CRAWFORD COUNTY—Each month I try to attend the county's Crime Clinic luncheon. Representatives from various state and local agencies attend, and we share information of importance to each officer. This is just one way to strengthen our law enforcement efforts on a county level.—WCO Dave Myers, Linesville.



Pioneering Muskrat

SNYDER COUNTY—After working my district for a dozen years, I thought I pretty much knew what wildlife inhabited which areas. But I got a surprise when I found a muskrat living in a culvert on the top of Shade Mountain. I really wonder how he got there.—WCO John B. Roller, Beavertown.

Weren't There Yesterday

McKEAN COUNTY—A local man told me back in January that he'd been waiting to run into me since deer season had ended. He wanted to let me know he'd hunted behind his house every day of buck season and had seen only three deer. But before he chewed me out about the lack of deer in the area, he looked out his back door one morning and counted 15 whitetails standing at the edge of the woods.—WCO John P. Dzemyan, Smethport.

Taking No Chances

WYOMING COUNTY—While on patrol last small game season, I came upon a man and woman dressed in fluorescent orange. I complimented their good sense for wearing safety clothing. The woman pointed out a third member of their party—a fox terrier dressed in a fluorescent orange sweater. It appears the agency's promotion of safety clothing is reaching a wide audience.—WCO William Wasserman, Tunkhannock.

Godfather IV

ELK COUNTY—I knocked on the door of a home in my district, and I saw a boy look out the window. I heard him run to tell his mother there was a cop at the door. Once I got inside, the boy and his brother had a million questions to ask me about my uniform, badge and handgun. I told them about my job and that most people call me a game warden. The boys seemed to accept that and ran off to play. I stopped by the home a couple weeks later, and it seems my explanations had had little effect. This time I was announced as “that gangster.”—WCO Dick Bodenhorn, Ridgway.

Dangerous Greed

WARREN COUNTY—Turkey hunting in this county has received some bad publicity because of the high number of accidents last year. Almost every day letters to the editor on the subject appear in our local newspaper. I fully support the use of fluorescent orange because its safety value is irrefutable. I think the problem stems from greed and peer pressure, however, and that limiting the sport to shotguns and mandating all the fluorescent orange in the world will not stop every accident caused by greed.—WCO James W. Egley, Tidioute.

Strange Place

MERCER COUNTY—Deputy Jerry Stainbrook and I received a report on an injured deer behind a supermarket. Arriving on the scene, we didn't see a deer but found drag marks in the parking lot. Instead of leading to a car, the trail took us to a dumpster. I opened the lid and a button buck, alive but badly injured, stared back. Store employees knew better than to try to dispatch the animal, and they were concerned the deer might go back to the roadway and cause another accident, so they put it in the dumpster for safe keeping. It was, without a doubt, the strangest place I ever found a deer.—WCO Donald G. Chaybin, Greenville.

Vacation At Pymatuning

Family vacation time is at hand, and I'd highly recommend a visit to the Pymatuning area. Many outdoor activities are available on the state park and the game lands. The Game Commission's museum facility, for example, just south of Linesville, is a must. The staff has lined up many guest speakers and outdoor experts, offering a great agenda of summer programs. Nature trails and lookouts are available for relaxing walks. The facilities are there for your enjoyment, and we look forward to your visits.—LMO Keith E. Harbaugh, Meadville.



Expensive Litter

BEDFORD COUNTY—Two Food & Cover Corps employees recently removed six discarded mattresses from a parking area on SGL 73. They took the trash to a landfill. This act of littering cost state sportsmen \$23 in tipping fees, wages for six man-hours, plus fuel and maintenance on the vehicle used to haul the trash. This is money that would have been used to improve wildlife habitat.—WCO R. Jim Trombetto, New Enterprise.

Early Or Late?

PIKE COUNTY—While hunting late season grouse in a barberry patch on SGL 209, my young Brittany flushed a woodcock. That's not a normal occurrence around here: It was January 22, the temperature was 12, and a half-foot of hard crusted snow covered the ground. Last year I saw a couple woodcock in mid-February while cutting browse, but this was the earliest I'd seen one in the Pocono Mountains.—WCO Lawrence A. Kuznar, Milford.

Easy Winter

FOREST COUNTY—With little snow and fairly mild temperatures last winter, I think the county's wildlife benefited. Turkey and deer have been very active along the streambeds and open forests, and the whitetails should have had plenty of browse to carry them through, due to the amount of timbering going on here. And from the reports I heard from bear and deer hunters, our grouse population is doing well, too.—WCO Alfred N. Pedder, Marienville.

Real Dumb

TIOGA COUNTY—While checking hunters during buck season, I stopped a pickup and found a rifle on the seat, its bolt closed. I asked the driver if it was loaded, and he said, "It sure looks like it is." He opened the bolt, and a live round popped out. "Boy," he said, "that was a dumb thing to do, wasn't it?"—WCO Steve Gehringer, Mansfield.

No Notice, Either

My son and another park ranger were checking wood duck boxes on Blue Marsh Park when a gray phase screech owl flew from the box they were cleaning. The owl flew to another box, and when the rangers checked that one they found the gray phase and a red phase screech owl inside. The pair flew to yet a third box, from which they were flushed again as the rangers performed their duties. I'll bet the owls never expected to be evicted three times in one day—from equal opportunity wildlife housing.—LMO Stephen L. Opet, Tamaqua.



First Things First

CLEARFIELD COUNTY—State Policeman Ralph Pfaff was hunting on the opening day of buck season, accompanied by his 11-year-old daughter, Amanda, who wanted to see if she'd like hunting. While stalking, they came upon a buck lying on the ground. Amanda told her dad to shoot, but Ralph could see a wound and said it was already dead. It was one of the biggest bucks he'd ever seen, and Ralph walked over to pick up the head for a better look at the antlers. The deer promptly jumped up, knocking Ralph on his backside, and ran off. Amanda should be impressed at her father's stalking ability, but we recommend shooting your trophy before counting points.—WCO Colleen M. Shannon, Luthersburg.

Pre-Flight Snack?

BEDFORD COUNTY—Earlier this year, biologist John Dunn, LMO Clay VanBuskirk and I were flying over the three rivers in Pittsburgh to conduct a winter waterfowl count. We landed at Allegheny County Airport, in the heart of the metropolitan area. While waiting to take off, John pointed out a red fox along the runway. In the midst of snow removal equipment and air traffic, the fox was going about his business of catching mice.—WCO David R. Koppenhaver, Everett.

Small Problem

CLARION COUNTY—While checking licenses this past season I heard many gripes about the size of the license holders being made today. It seems someone could make a holder $\frac{1}{16}$ -inch bigger all the way around. Then we wouldn't have so many torn, mangled licenses to check.—WCO David E. Beinhaus, Knox.



In A Hurry

BEAVER COUNTY—A roadkilled deer that found its way into a portable toilet at a Fish Commission parking lot probably provided a few laughs to the pranksters who put it there. But I know a fisherman who didn't find it the least bit funny. After I removed the animal, the man passed me on his way into the comfort facility. He muttered something like, "I thought you'd never get here."—WCO Keith A. Falasco, Beaver Falls.

Unsportsmanlike Conduct

ADAMS COUNTY—Reviewing last year's cases, I think the most remarkable one occurred when two individuals shot at a deer crossing a road—150 yards in front of Deputy Donald Swarm and me. One of the defendants tried to make excuses in front of the district justice, including why he wasn't wearing the required fluorescent orange. The judge didn't buy it. As far as I'm concerned, the defendant should be named "slob of the year."—WCO Steven M. Spangler, East Berlin.

Getting An Education

WESTMORELAND COUNTY—One county resident got an education in our wildlife conservation law enforcement and magisterial court systems after he was cited for littering on public hunting lands. Appearing before the magistrate, the man claimed he had no money, and that in jail he'd at least get three meals a day and a place to sleep. The obliging magistrate sentenced him to 10 days behind bars.—WCO Joseph V. Stefko, Greensburg.

Healthy Specimens

MONROE COUNTY—Jake Klingel, Stroudsburg, the largest commercial deer processor in the county, informed me the deer he handled this year were in the best physical shape he'd seen in his 20-some years in the industry. Some of the deer had layers of fat one to two inches thick in spots. And he said antler development, too, was the best he'd seen.—WCO David E. Overcash, Stroudsburg.

Hope For The Future

WAYNE COUNTY—During my travels one day, a large object in a tree caught my attention. Perched there, overlooking the Lackawaxen River, was a mature bald eagle. Nature seems to have the strength to persevere in the face of change and stress on the environment. With our help, maybe more eagles and other wild animals will be around for the next generation to see.—WCO Donald R. Schauer, Honesdale.



PENNSYLVANIA DEER HUNTERS again enjoyed banner seasons in 1990-91. The record kill of more than 415,000 whitetails tops the mark established in '89 by 25,000 animals. The Gehman clan, Salfordville, collected these fine bucks on opening day in Susquehanna County. From left, Don, Henry, Martin and Steve.

Hunters Take 415,561 Deer In '91

HUNTERS HAVE again set a Pennsylvania deer harvest record. Calculations based on report cards, reporting rates and other data show that hunters shot 415,561 deer during the 1990-91 seasons. That tops, by more than 25,000 animals, the record of 388,601 set in 1989.

Game Commission biologist Bill Palmer isn't surprised. "We were projecting a harvest between 370,000 to 450,000, and our deer hunters scored about mid-range in the estimate. While the 1990 buck harvest is technically a state record, from a management standpoint it's essentially the same as last year's. Pennsylvania still has too many deer, and we have a way to go to meet our current management goal of 21 deer per forested square mile," Palmer says.

During the five scheduled 1990-91

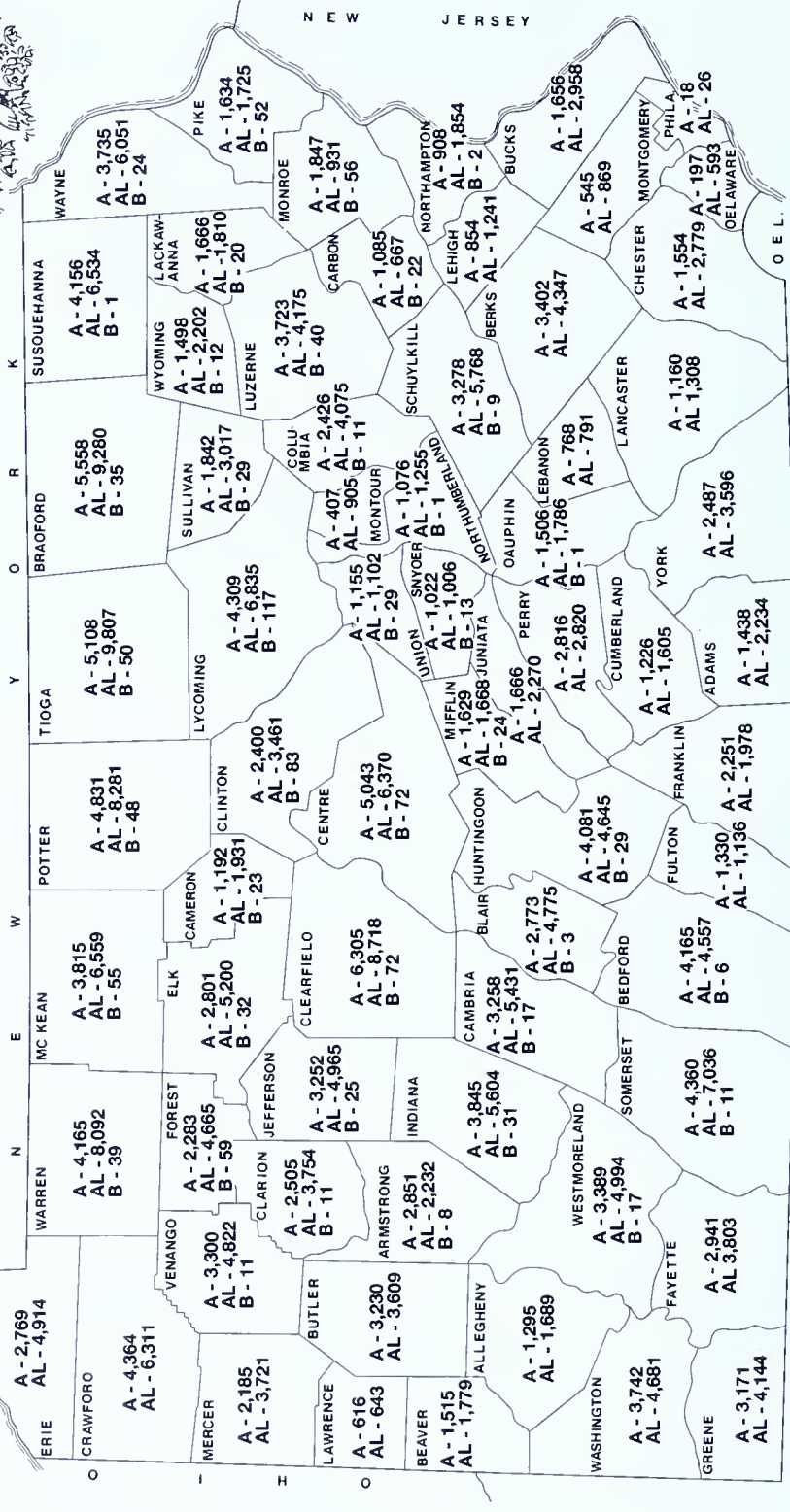
deer hunts, sportsmen took 170,101 bucks and 245,460 antlerless deer. The buck harvest barely eclipsed the 169,795 taken in 1989, and marked the fifth consecutive season hunters have broken the state buck harvest record.

Before the deer seasons got underway last September, the Commission projected a statewide average of 42





1990 DEER & BEAR HARVEST



ANTLERED DEER (SYMBOL-A)		ANTLERLESS DEER (SYMBOL-AL)		GRAND TOTAL BEAR HARVEST (SYMBOL-B)	
ALL SEASON	169,380	244,390			1,200
COUNTY UNKNOWN	721	1,070			415,561
TOTAL	170,101	245,460			

deer per forested square mile. A record antlerless license allocation of 806,100, and a more liberal bonus system that cleared the way for properly licensed hunters to take up to three deer, were designed to reduce the state's 1.1 million whitetails by about 410,000, which would have left an overwintering population of 26 deer per forested square mile.

"However," Palmer notes, "the deer population was higher than the 1990 projection. Postseason data indicate there were about 75,000 more deer than preseason projections. That equates to 45 deer per square mile, not the 42 we anticipated." Palmer says the deer herd was larger than the estimate because the overwinter survival rate was higher than anticipated.

"Our deer harvest is about what we expected for the number of licenses issued," Palmer says. "But because the preseason estimate was off about six percent, we didn't quite reach our goal. Rather than 26, we ended up with 29 per square mile."

Statewide, the 1990 seasons held the

deer herd in check. At the close of the 1989 season there were 29 deer per forested square mile, and right now the number is the same. In 28 of the state's 66 county management units, winter deer numbers were reduced from their 1989 levels; eight counties stayed essentially the same, and 30 counties experienced increases.

"This marks the second consecutive year deer harvests equaled fawn production," Palmer says. "And that's encouraging because it means we've stabilized a population that had been growing steadily for the previous 10 years. More importantly, it means we're poised to move closer to our population goal."

Leading buck counties were Clearfield, 6,305; Bradford, 5,558; Tioga, 5,108; Centre, 5,043; and Potter, 4,831. Top antlerless counties were Tioga, 9,807; Bradford, 9,280; Clearfield, 8,718; Potter, 8,281; and Warren, 8,092. Highest in total harvest were Clearfield, 15,023; Tioga, 14,915; Bradford, 14,838; Potter, 13,112; and Warren, 12,257.

Deer Management Meetings Being Held

The Game Commission will be conducting a public meeting addressing its deer management program in each field region this month. Commission personnel will provide an overview of past and present deer management practices and will discuss future management considerations. Individuals who sign in before the meetings begin will have up to five minutes to share their concerns about deer management. Only questions on deer management will be taken after the public comments are presented. The meetings will begin at 7 p.m. and conclude at 10 p.m. Signs will be posted to help attendees find the meetings.

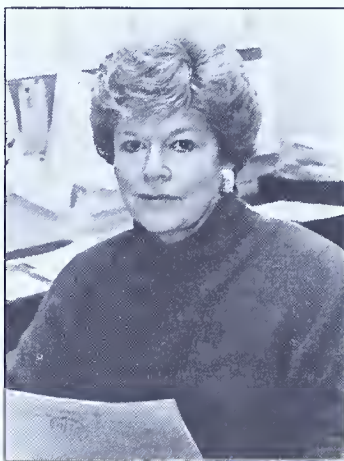
Northwest—June 12 at the Rocky Grove Fire Hall, approximately two miles north of Franklin on Route 417; **Southwest**—June 13 at the Latrobe High School auditorium. From Route 30, travel south (toward Latrobe Airport) on Route 981 for one-quarter mile, then take first road to left. The school is 1½ miles on the left; **Northcentral**—June 19 at the Bucktail Area High School Auditorium, located approximately one mile south of Renovo on Route 120; **Southcentral**—June 20 at the Indian Valley Middle School Auditorium, two miles west of Reedsville on Route 322 near Milroy; **Northeast**—June 25 at the Tunkhannock High School Auditorium, located along Route 6 east of Route 29 in Tunkhannock; **Southeast**—June 24 at the Schuylkill Valley High School auditorium, one mile south of Leesport at the intersection of routes 61 and 73.

Pennsylvania Game Commission 25-Year Club

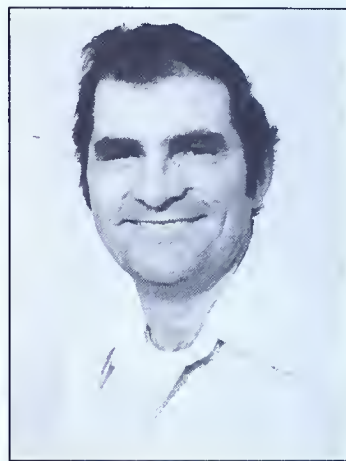
Pennsylvania Game Commission personnel have compiled an enviable record among public and conservation agencies for longevity of service. Few organizations in any area of endeavor can boast so many dedicated employees. The most recent PGC employees to complete 25 years of service are shown here.



Walter J. Ingalls
Food & Cover Corps
Union City



Jane M. Sikorkas
Clerical Supervisor
Lock Haven



Glenn H. Arnold
Surveyor
Newport



Silas L. Sweet
Food & Cover Corps
Delano



Benjamin F.F. Maurer, III
Food & Cover Corps
Lebanon

Other new members of the 25-Year Club include Budd M. Souter, Jr., Loyalsock Game Farm, Mountoursville; Harry A. Shirk, Surveyor, Fredericksburg; Harry S. Hawthorne, Eastern Game Farm, Royersford; and E. Howell, Labor Foreman, Newport.



HUNTERS, OF COURSE, aren't the only people who enjoy the great outdoors, and we often share the woods with the non-hunting public. Hikers, birders and other non-hunters should, as dictated by common sense, make themselves visible as they move through the forests. In other words, they should help hunters help them to be safe.

They're Stylish, Too

IMAGINE what it would be like if pedestrians knew nothing about traffic laws. People might wait on the corner while the cars stopped for a red light, then dart out onto the highway when the light turned green. For a pedestrian, crossing a road would be a frightening experience. He wouldn't know what approaching drivers might do when faced with red octagonal signs, yellow blinking lights or black arrows. He wouldn't even know that the safest place to cross the street is on the painted crosswalk, the most dangerous, mid-block with cars whizzing by.

Since most of us drive, we take that motor vehicle knowledge with us when we're afoot. We know how to act around those who are behind the wheel because we can anticipate what drivers will do. Though we've heard "the pedestrian has the right-of-way," and would like to think all drivers will heed that, we're aware that we can't assume the right-of-way will be granted. We protect ourselves by crossing the street in the crosswalk, and when the light is red. Pedestrians don't mind sharing the

road with drivers, and vice versa, because we have knowledge that assures the safety of us all.

Though a large percentage of pedestrians are also drivers, this isn't true of non-hunting and hunting users of Penn's woods. Many people who enjoy being outdoors are not hunters. Even if they have hunters in the family, they may not know anything about being safe in the forests and fields when there are hunters out there as well.

As a hunter, I take my hunter safety knowledge afield even when I'm not carrying a bow or firearm. I know that whenever I go for a walk in the woods,

Another View...

by Linda Steiner



This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

anytime of the year, it's possible I'll encounter someone who's hunting. Even if it isn't the "standard" small or big game season, gunners might be out after spring gobblers, groundhogs, doves, crows, fox, even frogs, or they might just be plinking with a 22. I don't let the possibility worry me. I just do what my hunter training and experience have taught me. I wear bright colored clothing, especially on my head. I want any hunter who's out there to see me, even if I don't see him. It's the best way I know to come home safe again.

Taking Responsibility

All licensed drivers must pass an intensive written and practical exam. But I don't assume the driver barreling toward me will halt at the red light. I wait at the corner to make sure he does stop before I cross the street. I can't whine that "he should have stopped" if I'm lying in the street—dead. I take part of the safety responsibility on myself.

So it is when I'm outdoors, too. I assume responsibility for my own safety,

even though I know hunters receive schooling and should obey the safety rules. I want to guarantee that I will come back unhurt, and I've never had any trouble doing so.

A cousin of mine and her son visited me several years ago during the October small game season. It was their first time in my part of the state, and I took them on a hike to see our flaming foliage. We were going to public land, and I grabbed my orange hunting hat as we left the house. My cousin and her son sort of stared at me. They knew I wasn't taking a gun. I explained to them that small game was in season, and that although the sport is a safe one, I wanted to be certain any hunter we encountered would see and identify us. They agreed it was a good idea, and glanced at each other to check the brightness of their clothing.

As it was, we did meet a grouse hunter and his setter. The young man stopped and we all chatted. Although I knew that my relatives weren't anti-hunters or anything, I felt the whole experience of being in the woods safely and meeting a pleasant fellow enjoyer of the outdoors (who happened to be a hunter) was a positive one all around. But then we'd taken extra steps to make it so.

On the other hand, I was told about a young woman who wanted to take her children for a hike at a local state park where hunting is allowed. This was during last deer season, and the woman was petrified to take her family into the forest with the hunters there. Certainly one can't fault motherly concern, but her lack of knowledge about hunting made her overreact. I was told she was advised to put some bright clothing on herself and the kids and just go for a walk, that hunters and hikers could use the park at the same time, there was no conflict. That didn't suit her. She considered the hunters were "preventing" her from using the park, and she went home in a huff. It was her loss because of her misunderstanding of the sport, and because she wouldn't teach her children how to be safe in the woods.

But I'm sure she'll teach them how to cross a road.

At the same park, there is a paved bicycle trail, popular with cyclists any time of the year it's not snow-covered. At the trail's entrance a sign is posted each fall advising users, "Caution, Hunting Season Open." This simple sign is an excellent idea, but I'd add a few more lines to it. The caution the bicyclists should be using is not so much to look out for hunters, but to make it easier for hunters to look out for them. I'd add these words: "Be Safe, Be Seen, Wear Bright Colored Clothing."

As a hunter, I have a closet full of brilliantly hued hats, vests, shirts and jackets, all in one color: orange. That particular safety shade may not be in the wardrobe of every lover of the outdoors. But certainly there is something comparable, some intense red, sunny yellow, shocking pink. If the closet's bare of brilliance, it's easy nowadays to buy something both fashionable and safe. The new "neon" colors, popular in ski wear and summertime togs, are ideal. As a plus, their "fluorescent" quality makes them visible even in dim light. Adults whose own closets are lacking should check their kids' for something that fits. It's certain they'll have a hat in "neon" that you can "borrow" for your next woods walk.

Hunting is statistically one of the safest sports around. Last year, out of

1.2 million hunters afield in Pennsylvania, there were only eight fatal accidents. In other words, anyone in the wilds while hunters are around has very little chance of getting hurt. I, however, don't want to be the odd one out, so I make sure by wearing a safety color.

Particularly Disturbing

One of the fatalities during the 1990 buck hunting season was particularly disturbing in that the victim was a man who was afield but not hunting, and not wearing any bright clothing. He was shot in mistake for game. Certainly the hunter doing the shooting should have known better, but I wonder about the man who was killed. Did he realize it was hunting season? Did he know he would have been safer if he'd worn a bright hat or coat? Maybe no one took the time to tell him.

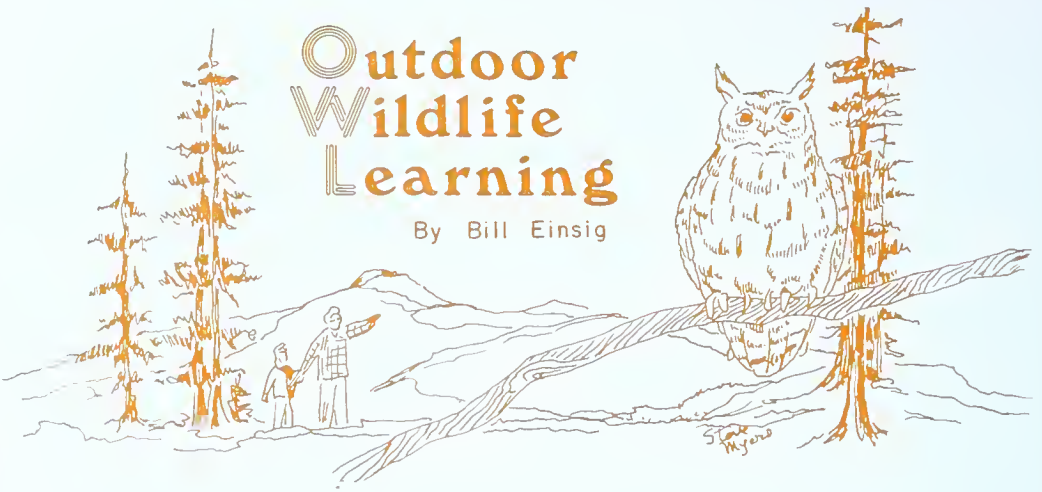
Certainly some education is needed here, if not on a grand scale, at least in small, individual ways. Perhaps signs on more public lands suggesting the wearing of safety colors for ANYONE going into the woods. Perhaps neighbors telling non-hunting neighbors how to be safe while they're bird watching, or just sitting in a grassy field on a summer day. A simple hat can provide wonderful insurance. It's a standard piece of outdoor equipment anyway, for eye shade and warmth; all that's needed for peace of mind is to make sure it's a bright one.

Youth Shoot Slated For Northwest

A shooting tournament will be held June 15 at the Izaak Walton League club grounds in Franklin. The event is designed to interest young people in the shooting sports by providing a friendly, informal competitive environment. The shoot will also expose participants to many marksmanship disciplines. Courses of fire will include sporting clays, rimfire silhouette and archery. Commission and other personnel will provide instruction, giving attendees an opportunity to safely learn competitive shooting techniques. Entrants don't need to bring anything; firearms, ammunition and eye and ear protection will be provided. Both team and individual entries are welcome. Pre-registration is strongly encouraged, and interested people can call the Northwest Region office toll-free (800) 533-6764 to register or get more information.

Outdoor Wildlife Learning

By Bill Einsig



While Camping Out

Dear Mr. Owl,

My sister and I would like to know of any activities we can do while camping with our parents. Our ages are eight and six. E.B., Spring City.

Dear E.B.,

Family camping is fun and a great time for learning about nature. Your family probably has a good time fishing, hiking, or boating, and I imagine your evenings are filled with good family activities while you're away from the television and telephone at home.

But there are also times when camping that family members need to work, or relax, alone. Your parents might decide to read, nap, or work at some project around the campsite that doesn't include you. There are also likely to be times when you would prefer to be alone, too.

Often such quiet times become boring because there doesn't seem to be much to do. After all, most of the things that occupy our time at home are still at home. Suddenly, we begin to miss those familiar toys and games and can't seem to find much at camp that appeals to us. At times like those you need to try something new and, since you're probably camping close to nature, you can work on a nature project of some kind.

The natural world is an exciting place filled with drama and humor for those who take the time to listen and observe. Here's a short list of nature adventures that may add a spark to your next trip.

Be a Critter Detective

All around you are wild animals sharing your camp. You might have squirrels and rabbits, mice and birds, or even deer. These animals go about their lives—searching for food, raising families, and shying away from humans—even though you are camping close by. How much can you learn about them? Do they leave tracks? Will they come to food you leave for them at night? Sprinkle flour in a wide circle on an outside table and place crumbs in the center. If any animals come to eat, they'll leave telltale tracks for you to examine in the morning.

Make a list of all the animals you see on your trip and the time of day you see each one. How many did you see? Did you see certain animals only at certain times of the day? Why do you see more animals of certain kinds killed by autos on the highway?

Be a Leaf Artist

Leaves are great for art projects. You can paste them together on paper or cardboard to decorate your camp.

Try this idea. Place several leaves of different shapes you like on white paper and splatter Tempra paint over them and the paper. A good way to do this is to use an old toothbrush and a small piece of window screen. Hold the screen above the paper and use the toothbrush to rub paint across the screen. A fine spray of paint will coat the leaves and paper but, when you remove the leaves, you'll find a

crisp, clear outline of the leaves you used. Make lots of different spatter prints like these as gifts for the people you meet on your camping trip.

You can also place leaves *under* your paper and then gently rub over them with a crayon. This usually works best when you rub with the side of an old crayon with the wrapping removed. Experiment until you find an effect you like.

Make a One Hour Aquarium

You can make a temporary aquarium using a bucket or bowl. I like to use a clear container so I can look through the sides.

Catch small critters from their hiding places among rocks, mud and plants in a mountain stream. Use your hands or a small net to catch them. Crayfish, insect nymphs, worms and all sorts of small critters are great fun to watch.

Try to look at their eyes and mouth parts. How many legs do they have? Do all the minnows have the same number of fins? Are they all shaped the same? Can you tell how each animal gets its oxygen from the water?

Most of these animals will die if you keep them in a simple bowl very long. The water may get too warm and the animals might not get enough oxygen. So study them for only about an hour. Then put them back into the stream and look for something new.

Be a Reader

Don't forget to take along a stack of books. Take some filled with puzzles for you to solve, others might be favorite stories. Some of your books might even help you learn about the plants and animals you meet on your trip.

Take turns reading to each other. It's always fun to have someone read to you.

Camping trips are great, but be safe in all you do. Always tell your parents what you intend to do and don't explore away from your camping area without them. Most of all, have fun.

Dear Mr. Owl,

I'm doing a school report on acid rain. Do you have any information you could send to me? B.K., DuBois.

Dear B.K.,

The Game Commission doesn't have information on acid rain, but I can give you some advice. Acid rain is a serious threat to many streams throughout our state.

Fortunately, many organizations have begun to recognize the problem and have published information about it, even though little is being done to adequately solve the problem.

Much of the information you need is in your local library. Ask the librarian to help you use the *Reader's Guide to Periodical Literature* to find magazine articles on acid rain published during the last five years. You'll find much more than you can use.

A booklet I found to be especially helpful is called *Acid Rain* (stock No. 055-000-00198-7) published by the Environmental Protection Agency. Request it from Publications, Center for Environmental Research Information, US EPA, Cincinnati, OH 45268. Or ask your local congressman to get it for you.

Also contact the Pennsylvania Fish Commission for information. That agency has been studying the effects of acid precipitation on our trout streams for years and has come up with some alarming information. Its address is PFC, P.O. Box 1673, Harrisburg, PA 17105.

Finally, you should know about a project called ALARM! that provides test kits for volunteers who want to monitor the effects of acid rain on a local stream of their choice. You can get information about ALARM! from Dr. Candice Wilderman, Dickinson College, Carlisle, PA 17013.

Dear Mr. Owl,

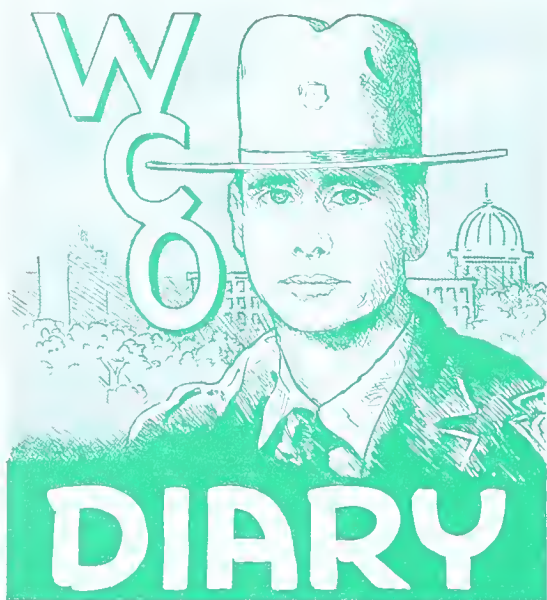
Why do WCO's wear their chin straps in front of their mouths instead of under their chins? D.L., Hanover.

Dear D.L.,

The Stetson hat with chinstrap is part of the wildlife conservation officer's official uniform. It is similar to that worn by the Pennsylvania State Police and was probably borrowed from them or from a common source.

Military uniforms with a chinstrap resting on the chin, rather than under it, date back at least to the 18th century in both England and France among other European countries. It's difficult to say for certain, but the practice probably stems from a safety factor. Regardless, once started, it seems to have been carried down as part of many official uniforms.

If you have a question about Pennsylvania's wild heritage, send it to Mr. OWL, Game News, PGC, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

IF YOU'RE a regular reader of this column, you should now have a better understanding of the role and responsibilities of an urban/suburban WCO. For the past several years you have been treated to the experiences and colorful encounters of my big woods counterparts. While the setting between my district and that of a north woods district may be quite different, WCOs perform many of the same tasks.

By now you're probably wondering what I might be doing during the month of June? The major hunting seasons have long passed. Wild animals are settling into the business of raising their young and, therefore, are more reclusive. Schools have dismissed for summer vacations, so the opportunity for educational programs has declined. Sportsmen have turned their attentions to fishing and tending to lawn care chores. Yet, I'm as busy as ever. The decline in traditional duties allows me more time to tend to some less known responsibilities.

The Game Commission, through the Bureau of Law Enforcement, administers 18 different types of permits that control how wildlife is used by people. Each WCO in the state is, in turn, responsible for monitoring permittees and their related wildlife activities. Permits are required for those involved in bird banding, falconry and taxidermy, and by fur dealers, wildlife propagators, and owners of

menageries. WCOs are required to oversee these permittees to ensure their compliance with all applicable laws and regulations that govern their particular class of permit.

I'm responsible for administering almost 70 permittees covering 13 classifications, plus several special classes of permits. In most cases, periodic inspections of the permittee's facility is required, along with a briefing on the rules, regulations, guidelines, and procedures that must be followed. While many on-site inspections are uneventful or routine, some hold unexpected surprises. Enjoy the sunshine as we ride and hike into another month's assignment.

JUNE 2—Deputy Bob Schmitt and I are up with the sun to serve another warrant. We pull into a small trailer park to locate a fellow before he goes to work. The individual was involved in a violation in Potter County during the previous deer season and had lapsed in his fine payments. A sleepy-eyed, whisker-stubbed face answers our knock at the door. He's the gent we're looking for, and after hearing his options, he decides to pay the balance due rather than take a long ride to Potter County. A good choice, I thought, not too keen on such a journey myself.

From there we moved on to serve a revocation notice to a fellow in Enola. Each year numerous offenders of the Game and Wildlife Code receive notices that their hunting privileges are being suspended as part of their penalties. When the certified mailings notifying offenders of these suspensions are not received or accepted, WCOs are sent to hand deliver the documents.

Bob and I end up tracking this fellow all over Cumberland County. He has moved three times since his recent deer season violation. We're finally able to deliver the letter, much to the recipient's chagrin.

I round out the day with a bit of patrol work on SGL 211. With pleasant weather upon us, recreational activities increase dramatically on public lands near large population centers. I need to keep tabs on these areas to minimize any abuses.

JUNE 7—While patrolling the East and West Hanover townships, I'm dispatched to investigate a shooting incident in Londonderry Township. Upon my arrival, a smartly dressed young woman emerges from the house with her children. She

informs me that earlier in the afternoon she and her youngsters were inside their contemporary, split-level home when they were startled by a loud "crack." The noise was preceded by a distant report of a rifle blast. Sure enough, when she investigated the noise, she noticed two orange-clad individuals walking through a nearby farm field. She remained uncertain about the loud crack that was heard. Later, she was able to piece together the puzzle. While walking outside the front of her home, she saw a small chunk of brick missing from the house wall just below the living room window. The indentation appeared to be made by a projectile, and upon my arrival I confirmed her hunch.

I searched the driveway and front yard for more than an hour, but the copper-clad projectile was not to be found. She informed me that she had initially telephoned the State Police about the incident. I checked with the Harrisburg barracks, and they confirmed that a trooper had interviewed two fellows who were groundhog hunting in the area, but they denied doing any shooting. Without a projectile, I had little hope of finding the firearm responsible for the near mishap. I shared the homeowner's thankfulness that no one was injured.

During hunter education courses, we emphasize the concept of being sure of your target and, just as importantly, what lies beyond. A safe backstop is required to stop errant shots such as this.

A tight time schedule prompts me to continue on to Steelton. There I meet Deputies John Flory and Larry Mummert. They're going to man a display we will assemble for a local outdoor recreational show held in the borough.

At my last stop, a troubled lady in Lower Paxton Township found her children playing with a young raccoon in their backyard. Concerned with the youngsters' safety and mindful of the rabies problem in this part of the state, I respond. The little rascal is found to have holed up in the corner of the home's patio, and I'm relieved to learn no one has actually touched it. I capture the wayward raccoon and take it to the remote mountains north of the area.

JUNE 9—A scheduled day off, but during the night I'm called to respond to a violation in Scott Bills' district in the upper part of the county. While patrolling the Susquehanna River at sunset, Waterways

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; North-east, 1-800-228-0789; and South-east, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

Conservation Officer Barry Mechling and several of his deputies heard the bawls of hounds and saw beams of light flashing across the night sky. What had prompted their concern was the fact that this activity was taking place on a restricted area of State Game Lands 290, commonly called Haldeman's Island.

The Game Commission owns several large islands on the Susquehanna River, but this one is, perhaps, the most notable as it was serving as one of the release sites of our recent bald eagle recovery program. A portion of the island is posted against entry to protect the hacking tower and surrounding area from human disturbance. I was aware that a pair of returning eagles had constructed a nest and were believed to be incubating two eggs.

I met Barry, his deputies, and two of Scott's deputies in the parking lot on shore. Also there were several pickups with the moonlight glistening off large dog transport boxes bolted to their beds. After obtaining vehicle registration information about the trucks from the region dispatcher, I was more perplexed. Why would people from around the state and Maryland be chasing raccoons, in June, on a restricted and highly sensitive area surrounded by this big river?

Knowing that raccoon hunters often chase all night, and as it was already midnight, we decided to go look for them rather than just wait. Several of Barry's deputies remained at the trucks while the rest of us paired off, crossed the island's access bridge, and headed into the night.

The air was cool and quite damp as a



Question

Does a "Sportsman's Firearms Permit" allow me to carry a loaded handgun in a motor vehicle?

Answer

No. To carry a loaded handgun in a motor vehicle, a "License To Carry Permit" must be obtained from the County Sheriff.

thick layer of fog was beginning to form across the island. Great, just great, I thought. We haven't heard a sound since my arrival, and now it's going to be difficult to see a hand in front of my face.

Barry and I followed an access road into the restricted area, near the area of greatest concern, the active eagle nest. The fog not only hampered visibility, but was also muffling the night sounds as well. As I continued to ponder what the intruders may be doing, we glimpsed the flicker of a small light along a wooded area to our right.

"Come on, let's go!" I whispered to Barry.

We quickly, but quietly jogged toward the flickering light. Getting closer, I could make out the image of a group of people milling. Soon, I could hear the sound of men's voices.

The thick shroud of fog and quiet conditions allowed us to walk undetected into the core of the group. What better way to find out just what's going on than to fit into the gang. Eight to 10 fellows were peering at a map and some type of document while discussing their plans. Several long-legged hounds scampered about in the diffused light of the headlamps. These were dyed-in-the-wool raccoon hunters, but nobody appeared to have a gun with them. Why train dogs in June and here of all places? My curiosity got the best of me, so I butted into the group's conversation.

"Can I help you fellows with something?" I inquired.

"Huh? What? Who're you?" was their response.

After a lengthy chat, we determined that these fellows were part of a large competition being conducted that evening in Juniata county. The group's leader was a local fellow who figured the island harbored a sizeable raccoon population. A great opportunity to really test the competitor's canines. A poor choice of locations, I thought, and everyone was quickly ushered out of the area. After verifying their story, the group later settled the matter on field receipts.

JUNE 14—After disposing of a roadkill I head toward the Hummelstown area to present several outdoor programs to the hundred plus Girl Scouts encamped there. The group was interested in the basics of hiking and nature observation. Armed with an array of day packs, hiking staffs, clothing, binoculars and field guides, I whet their appetite for an outdoor adventure. The bulk of my educational programs are not focused on hunting, but touch upon a spectrum of wildlife related interests and activities. My goal is to instill an awareness and appreciation of all our wildlife resources to the largest possible segments of our society.

Later, I swing down to the Middletown area to continue my ongoing inspections and meetings with the district's special permittees. I visit a licensed propagator engaged in raising and selling ring-necked pheasants and bobwhite quail.

JUNE 16—A full day of permittee inspections and conferences around the district. During the middle of the day I break the routine with a bit of boat patrol on the river. Today marks the start of the regular bass season, and the Susquehanna River boasts some of the best small-mouth fishing in the nation. My chief concern is not necessarily checking the fleet of fishermen adrift today, but to monitor some special islands in the Harrisburg area.

The district hosts several long-standing heron and egret rookeries. Rather large numbers of these graceful wading birds return each year to nest on these communal small islands in the middle of the river's flow. The islands are posted by the commission against public entry, to protect the densely nested area. I need to be

certain that the flurry of fishing activity on the river today is not going to disturb the birds. More importantly, I'm concerned that no one has chosen to camp on any of these maternity areas.

All is well, and I'm treated to a rare show as large, leggy great blue herons and common egrets alight and depart from their treetop nests. Smaller green and black-capped night herons traipse about the dense thickets. Occasional waterfowl and shore birds add to the ornithological event.

JUNE 19—My shift begins with a return to the river. A concerned fisherman reports a deer that appeared to be stranded at the head of one of the larger islands. While deer are excellent swimmers and frequent the islands regularly, this incident may be different. The caller believes the deer may be injured. I respond, and after a lengthy search of the area I find nothing.

Later, I've arranged to meet a couple who live in Harrisburg to discuss their application to obtain a permit to possess a wolf. Wolves are classified as exotic wildlife in Pennsylvania, and domestically propagated animals may be possessed only by properly licensed individuals. The permittee must meet stringent requirements concerning care and handling, pens, etc. I'm somewhat apprehensive about inquiries into exotic wildlife possession from a public safety standpoint. Also, I'm curious why anybody would want to keep such animals in captivity. This couple proves to be a rare treat indeed.

A year earlier I was dispatched to investigate a report of somebody at this particular place illegally having a wolf. Despite several visits, I never found anyone home, nor was I able to determine that such an animal existed there. Now, upon this couple's inquiry, I'm not sure that my earlier findings were accurate.

The Nazi flag hanging in the front window provided another clue that I was about to embark on a most unusual experience. My knock was answered by a petite blonde who welcomed me and invited me inside. As I stepped through the entrance, I was surrounded by an overwhelming display of World War II relics and artifacts adorning every wall of the living room. There was no American flavor to the collection, however; every item had strong Nazi ties. Lugers, swastikas,

TURKEY HUNTERS: Don't forget to report your birds. Harvest report cards are due within 10 days of killing a gobbler. If you've already used your report cards, mail to the Harrisburg headquarters a post card with your name and address, license back tag number (including letter) and the date, county and zone of kill.

flags, swords, daggers, and portraits of Adolph himself were all prominently displayed. In the corner sat the man of the house, a rather meek looking fellow, quaffing a cold brew in—you may have guessed—an Old World pewter stein.

Despite all of the distractions, my attentions were riveted to what was in his other hand. He was holding upon his lap some type of military automatic rifle. I must say, I'd been in quite a variety of situations before, but this one had the potential to top 'em all.

"Nice day, today," I opened, for lack of anything better to say at the moment.

"What do ya think of my baby?" the fellow asked.

Not seeing any children in the room, I surmised that he was referring to the rifle now perched upon his knee.

"Uh . . . well . . . uh, nice. What is it?" I made the mistake of asking as I kept one eye on him, one eye on her, and wished that I had one more eye on the back of my head to guide me to the door I had just entered.

After a long and one-sided dissertation on firearms and the merits of automatic weapons, the couple invited me into the kitchen to discuss the purpose of my visit, the permit for a wolf. Declining an offer for a beer, I sat at their breakfast table that was draped with—you guessed it again—a Nazi flag as a table cloth.

"You've probably noticed that we're a little different," the young blonde said matter-of-factly.

"How's that" I asked.

"Why, we're Nazis, of course," she replied.

"Really, I hadn't noticed," I said trying to downplay the whole situation and wondering how I was going to handle their inquiry into the permit.

After explaining the lengthy list of requirements set forth by law concerning the permit, the couple's intentions be-

came obvious to me. They wanted the critter as a pet, complete with a collar and leash to take on evening strolls about the neighborhood. When I explained that exotics must be kept in a specifically designed enclosure and cannot be typically removed, especially for walks about the neighborhood, their enthusiasm took a nosedive.

I became especially cautious of my choice of words as I responded to their displeasure, evermindful of the man's inclination for the firearms and weapons adorning the walls around us. I wanted to somehow work into the conversation the fact they were suspected of having a wolf. From their response I learned that they had a "wolf-hybrid" (a wolf/dog interbreed) before the regulations were extended to cover such animals, but that it had died. Later, I inspected the rowhouse and found no signs of the animal, thereby supporting their claims.

Upon concluding our discussion, I left copies of the laws and requirements with the couple and requested that they contact me if they should desire to proceed with their inquiry. (Fortunately, and to date, I have not heard from those most memorable folks.)

JUNE 21—This month certainly provided some unusual events, and this day added to the list. If you recall, back in the January issue, I made reference to the "Dopey Dealer" and how our paths would again cross. Well this morning was to be that day. I have another arrest warrant for this guy as he has yet to pay a single penny on his earlier jacklighting violation. Moreover, the Derry Township police have several additional warrants for him. They haven't had much success locating him recently, but I come up with a hot lead.

Deputy Larry McCarter and I are out shortly after sunrise and are on our way to Dopey's mother's house in Hershey. Dopey is supposed to be living at home again, and I have a hunch that the rooster doesn't crow very early in Dopey's neighborhood.

Larry and I work out a plan of action to ensure our success. Larry takes a station beside the front door. I head around back and position myself to watch the two rear

entrances to the house. Once we are settled in, I contact my regional office in Reading, via my portable radio, to begin phase two of the plan. Information & Education Supervisor Mike Schmit is to call Dopey's house and ask to speak with Dopey. If he comes to the phone, Mike will inform him of the warrant and of our presence. Dopey is then to open the door or we'll be coming in, invited or not.

Mike soon radios back that Dopey's going to unlock the door. After helping Dopey get dressed and comb his hair, I explain his options. Just as I figured, Dopey is a bit short on finances, so we're all off to the magistrate. Derry Township police are notified that we have Dopey in custody and they are there to meet us at the district justice's office.

Dopey can't seem to drum-up the money required for his release, and the district justice completes the necessary papers for Dopey's commitment to the county jail. Derry Township officers are more than willing to take Dopey on the next leg of his journey. Amazingly, Dopey spends the duration in the county lock-up to satisfy our penalty. He does, however, manage to gather enough cash to satisfy the township warrants, or his stay would have been longer.

JUNE 27—BRRINGG! BRRINGG! I'm aroused from my sleep by an early morning call to respond to an injured deer at the Three Mile Island nuclear facility in Londonderry Township. Apparently, the deer had crashed into a chain link fence at the complex and was unable to regain its feet. Unfortunately, the injury was quite severe and the animal had to be killed. Several deer each year are victims of this type of fence, and I'm not certain if they don't see the fence or if they think that they can run through it.

This evening I join Deputy Waterways Officer Clair Shoop for some river patrol in the Halifax area. We have a most enjoyable summer evening along the majestic Susquehanna, checking numerous fishermen and boaters along the way. My mind begins to drift as I anticipate my upcoming vacation. Little do I realize what awaits with my return. Join me next month for some dramatic escapades.

ROCK RUN lives up to its name. The stream, in the Moshannon State Forest in Centre County, drains a tract of wooded terrain with more than its share of rocks: lichen-blotched boulders, fields of loose pale slabs fanning down the mountain slopes, big gray-tan outcroppings. Mountain laurel and rhododendron complicate the terrain around the stream, which, in March, brawls through its bed of rocks.

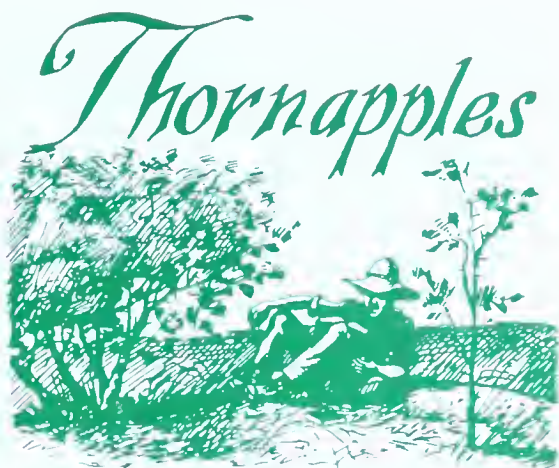
Although the Rock Run drainage lies only a few miles south of Interstate 80, its character is one of remoteness, of a place set aside from the world's clamor and bustle, where you can expect a deer or a bear or a bobcat or a coyote around every bend in the trail. "In Rock Run a hiker can have what I call a 'semi-wilderness' experience," Ralph Seeley told me. "That's why we put a trail there."

The trail is a 10-mile figure-eight with a 2-mile access path connecting it to Pennsylvania Route 504, known locally as the Rattlesnake Pike. I hiked the footpath with Seeley and his friend Tom Thwaites in March.

Seeley is a short, white-haired, soft-spoken 60-year-old, a retired professor of engineering. Thwaites is a retired physics professor (both men worked at Penn State University), taller than Seeley and more loquacious. Thwaites is the author of two popular books on hiking, *Fifty Hikes in Central Pennsylvania* and *Fifty Hikes in Western Pennsylvania*. He laid out and oversaw the building of the Mid-State Trail, a 165-mile footpath that wends its way through the mountainous wilds between Huntingdon County and Tioga County.

The day we hiked Rock Run Trail, the wind made the trees sway and creak. Snow flurried from the dark sky. Wearing a heavy sweater, a nylon parka, gloves, and a hat, I was barely warm. But my companions kept us moving at a brisk pace.

Rock Run Trail is marked with blazes—swatches of blue paint at eye level on trailside trees. The trail followed the edge of the narrow flat



Chuck Fergus

through which Rock Run flows. In the flat, the forest gives way to grass, huckleberry patches, and scattered pines and maples.

We arrived at what Seeley calls "the junction," where the trail's two loops meet. A sign there identifies the two halves of each loop: Woodland Trail and Headwaters Trail forming the south loop, Valley Trail and Ridge Trail combining for the north loop. Seeley said the only reason he named the four segments was to make each distinct for the volunteers who keep the trail in hiking shape.

Sturdy

The first time the sign was put in place, Seeley told me, someone carried it off. This second signpost is set in concrete. Seeley's deep laugh sounds like it comes from a much bigger man. "Tom and I each carried in an 80-pound sack of concrete," he says, blue eyes dancing. "This sign isn't going anywhere now." To thwart vandals with chain saws, Seeley rimmed the sturdy wooden sign with steel angles, and built the post out of two pieces of wood sandwiching a steel plate.

Humans are not the only defacers of trail signs. "Porcupines dote on pressure-treated wood," said Thwaites, "and bears just love fresh creosote."

We soon came to Rock Run, flowing full and fast. We crossed on one of the trail's two bridges. Before Seeley put

The *Wingless Crow* is a collection of 33 "Thornapples" columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

the bridge in, hikers had to wade, or teeter across on a slippery fallen oak. I stopped in the center of the span and moved my weight up and down. The bridge flexed slightly. I had watched the bridge taking shape on Seeley's front porch, in the village of Stormstown, over the course of two years. "My wife was very glad when I finally took it into the woods," Seeley said. The bridge—Seeley's own design—is 24 feet long, two feet wide, its deck a lamination of foam and plywood bonded together with epoxy and coated with fiberglass; the frame is pressure-treated pine. One day in 1990 the Bureau of Forestry loaned Seeley five employees, who helped him carry the 340-pound structure a quarter of a mile down the trail and set it in place over the stream.

After crossing Rock Run we started

up the Ridge Trail, climbing gradually through oaks, maples, sweet birches and black cherries. Thwaites stopped, shrugged off his daypack, put together a small bow saw, and made short work of a maple that had fallen across the path. "Tom can't go anywhere without performing trail maintenance," Seeley said.

I commented on Thwaites's sturdy, handy-sized saw. "That's a Norlund Guide Saw," he said. Thwaites wears small dark-framed eyeglasses over which his unruly eyebrows project. "Manufactured in Lewistown, PA. Don't make them anymore, unfortunately. They are the very best of the folding bow saws."

The Ridge Trail wound through fields of rocks ranging in size from softballs to garbage cans. In places the rocks jutted from the path. Rock Run Trail is billed as having "good snow-holding qualities," and it is used by cross-country skiers. "With all the rocks, you really need a foot of snow," Seeley said. When conditions are good, skiers can do both loops in a bit over five hours. Seeley advises an early start: "The blue blazes become invisible at dusk—around 4:30 in December."

In fact, the idea for a trail in Rock Run occurred to Seeley and Thwaites when they were skiing there in the late 1970s—"bushwhack skiing" is how Seeley characterizes those early expeditions. The two men approached the Bureau of Forestry, in Pennsylvania's Department of Environmental Resources. Because the site was classed as "Commercial Forest," the Bureau had no specific plans for recreational improvements such as hiking or ski trails. A few hunters used the lonely valley, people fished for native trout, logging contracts were let in the vicinity. The district forester had no objection if hikers wanted to build and maintain a trail.

At the time, Thwaites was busy grooming and extending the Mid-State Trail, so most of the work at Rock Run fell on Seeley. Seeley is faculty advisor to the Penn State Outing Club, a stu-



dent activity organization, so he knew he could draw on students to help clear the trail. But first he had to settle on a route.

"I spent a lot of days hiking around, tying plastic flagging to laurel and trees," Seeley said. "I hiked each section three or four times. Where I wanted the trail to climb the mountain, I picked a grade that wasn't too steep. Generally I tried to avoid rocks—but as you can see, that wasn't always an option." Actually, Seeley believes a certain degree of rockiness is useful in deterring people from illegally running ORVs (off-road vehicles) on the trail.

Seeley finished clearing the trail in 1983. Then he helped recondition the Quehanna Trail, in the Moshannon State Forest, about 30 miles north. It's a 75-mile hiking and skiing route with two 10-mile cross-connectors and another 35 miles of paths in the Quehanna Wild Area. Seeley coordinates volunteer maintenance in the Quehanna. There, as on the Rock Run Trail, access is only by foot. Hikers are permitted to camp along the trails.

From the ridge we descended Rock Run's west branch. The trail was a smooth, gentle downhill run. On the path, snow had collected in short shallow furrows, arranged one after the other like ladder rungs: depressions where railroad ties had lain.

"I was able to put about half the trail on the old tram roads," Seeley said. "The timber was logged off around the turn of the century. These grades are all pick-and-shovel work—sometimes a little black powder." He pointed to a pronounced trench alongside the trail. "They mined the rocks there to build up the roadbed."

Below us, tall hemlocks and yellow birches stood along the run. Glossy mountain laurel trembled in the wind. The gushing of the water competed with the wind roaring in the treetops. The tram road reversed itself, reversed itself again—a switchback, where the narrow-gauge railroad engines, pulling two or three cars, could negotiate a particularly steep section.



To get a map of the Rock Run Trail, send a stamped, self-addressed business-size envelope to Ralph Seeley, RD 1, Box 82, Port Matilda, PA 16870.

We crossed Rock Run's west branch and soon came again to the stream's main fork. We walked among paper birch, the trees' white bark looking fresh-scrubbed against the darker maples and oaks. We crossed the run on another bridge—a work party of 15 hikers had packed in the wood and assembled the span in 1987. We ate lunch next to the stream, not talking much, stuffing our sandwich bags back into our daypacks, standing up and brushing off the crumbs. “Funny how short the lunch breaks are in winter,” Thwaites commented.

The path followed another tram road, forging straight ahead through laurel

and rhododendron. “This part of the trail was tough to clear,” Seeley remembered. “We lopped off most of the laurel and pulled out the rest by hand.” He paused, glanced around. “See all the buds? It's going to be pretty in here when the shrubs are in bloom.”

Instead of sneaking along, Seeley, Thwaites and I were talking as we walked, and we saw no deer, let alone bear, coyote or bobcat. We glimpsed a grouse flushing out of a hemlock. Watched a couple of chickadees and a brown creeper. Saw where porcupines had been denning in the rocks. On other Rock Run hikes I have spotted deer, ravens, hawks and migrating warblers. Seeley has encountered turkeys. Like much of northern Pennsylvania's even-age forest, Rock Run is not particularly rich in wildlife. It is, however, abundantly blessed with beauty and solitude—made a little more accessible by Ralph Seeley's trail.



Upcoming Attractions at Middle Creek and Pymatuning

Upcoming lectures at Middle Creek begin at 7:30 p.m. and include “Streambank Fencerows for Wildlife” by Penn State's Margaret Brittingham, July 10–11; and “An Artist's View of Nature” by wildlife artist and regular GAME NEWS contributor Bob Sopchick, July 17–18. August marks the return of the annual Middle Creek Wildlife Art Show. Admission is free, and the scheduled show times are August 9, noon to 8 p.m.; August 10, 9 a.m. to 8 p.m.; and August 11, 9 a.m. to 5 p.m.

Pymatuning lectures include “Eagles” by Pymatuning staff, June 1, 7 p.m.; “Wetlands” by deputy wildlife conservation officer John Boyd, June 8, 7 p.m.; “Heron” by sanctuary founder Ed Brucker, June 29, 2 p.m.; “Woodcarving” by noted Meadville carver Dom Petruso, July 6, 2 p.m.; “The Backyard Series,” a slide show of birds and plants, by retired U.S. Fish & Wildlife Service agent Ed Baker, July 13, 2 p.m.; “Bats” by PGC Forest Technician Cal Butchkowski, July 20, 8:30 p.m. Pymatuning is also holding a photo contest, which will include color and black and white nature photography. The deadline for submissions is July 12, and the judging will be held July 21. There is a \$5 registration fee. For contest details, call the visitors center at (814) 683-5545.



THIS STATE OFFERS some great whitetail hunting. When considering trophy potential, sportsmen need to take into account that few of our bucks make it past 18 months of age, and many of the biggest and oldest bucks are in areas not very accessible to hunters. Cy Steigelman shot this 10-point with a bow on the last Friday of firearms season in Cumberland County.

Keystone Considerations

By Keith C. Schuyler

IT'S BEEN SAID here and elsewhere that any deer taken with the bow and arrow is a trophy. The circumstances under which the animal was taken may or may not be of special significance. But whether the animal has a bald head or an impressive rack, it is truly a trophy.

Granted, we generally think of a trophy as a tangible reminder of the event. As Webster defines it, "*a lion's skin, deer's head, etc., displayed as evidence of hunting prowess.*" For the individual archer, the downed animal is the most tangible evidence of hunting prowess.

As it is viewed with that special mixture of pride and sadness, a memento of the event is etched into the archer's memory that will be special only to him or her.

Perhaps later someone comments, "Heard you got your deer. Was it a buck or a doe?"





DENNIS BECK took this 10-point within walking distance of his Luzerne County home on the archery opener. He had to wait only 15 minutes before the trophy buck appeared, which perhaps had been pushed to him by a neighbor.

lers, but any deer taken with the bow is still a trophy.

That brings me to a single point. All of us are impressed with the magnificent antlered deer that adorn the covers of many outdoor magazines. Many of these deer were photographed at zoos or menageries. Nevertheless, [inside these periodicals] we see equally large bucks, with accompanying stories, that are authentic kills. Not too many—especially bow kills—come from Pennsylvania. It must also be considered that these are frequently exceptional animals (as are those pictured here) from across the entire country, some of the best taken among many thousands of hunters.

Two important factors must be considered when comparing Keystone State deer with those from many other states. Only a small percentage of bucks make it past 18 months of age. Furthermore, many of the biggest and oldest bucks are sheltered in residential areas and other grounds where hunting isn't possible, where they have a better chance to reach their top trophy potential. In states where it seems hunters have a greater chance of dropping a trophy, it's often because bucks are more apt to slip through successive seasons because of lower hunting pressure.

Other factors enter the picture. During the months before the mating season, which is in earnest around early November, the big smart bucks tend to become more nocturnal, especially in the agricultural areas where they are more likely to be found. It is not until December, when the woods are well populated with hunters, that even smart bucks are apt to reveal themselves during the day.

Despite all this, there is evidence that bucks and their antlers have been improving in size during recent years. This information comes from Sherwood Schoch, who every February supervises

You may somewhat sheepishly reply, "Just a doe," even though, secretly, you are still proud. If the person is someone who guns a buck about every year after failing to score in the archery season, you may get a lackluster, "Oh, well."

On the other hand, if it is someone who has shot a few deer with the bow, you will probably receive a congratulatory, "Good for you," or something similarly uplifting.

My first bow-killed deer was a small doe. But it created a fair amount of commotion because it was the 32nd all-time big game animal taken by an archer and recorded by the Pennsylvania State Archery Association. It was taken in 1950, the year before we had an archery season. I didn't keep any part of that deer as a trophy, but the etching remains.

Oh, I'm human. Last year I shot what my tormentors finally conceded was a 3¾-point buck—I thought it a 4-pointer. In taking him I passed up a doe that was half again his size and five yards closer. We prefer deer with ant-

THIS COLUMBIA COUNTY buck scored 145 2/8 Pope & Young points, a proud trophy for Bob Markle. He was late getting to his area and as he approached his stand he saw a herd of deer moving his way, led by the big 8-point.

the Weaknecht Archery and Sporting Goods big buck contest, for both archers and riflemen, at Hamburg's Hunting and Fishing Expo. More than 5,000 archers, those who purchase their hunting and archery licenses at Weaknecht, are eligible to vie for \$10,000 in awards. Each annual measuring session to select winners provides a comparison with past years.

"There is no positive answer, but it is a fact that both archery and gunning trophies have been increasing in numbers and size," Sherwood says. "Further, whereas it was customary to find one in five or six with nontypical points, currently such points are found on about half of the antlers submitted for measuring."

The 10 highest measurements from the Weaknecht contest for the past two years seem to substantiate Schoch's words. In 1989, the top 10 measurements scored almost exactly 100 points on average, and of those entered, 54 were 6-point racks or better. For the 1990 season, the top 10 scored an average of 108, and of those entered, 62 were 6-points or better. Consequently, although this is admittedly a small sampling, the racks averaged eight percent larger in 1990 than they did the previous year.

Consecutive years of mild winters and good forage may be translated into heavier and better antlered deer, compared to those of past years with rough winters. Planned heavier cropping of deer through hunting may be a secondary and important consideration.

In my opinion, there are three areas where deer with big antlers are most likely to be found in this state. Foremost are the areas in and near metropolitan areas. Such sites often represent ideal habitat, but hunting, for one reason or another, isn't possible. Second are fringe areas adjacent to such sites that are open to hunting. Third are



deep woods far from human habitation, where hunting pressure is less. Nevertheless, sufficient quantities of the right kinds of food are still a prerequisite for producing trophy deer.

To support such reasoning, I contacted some archers who have taken exceptional Pennsylvania deer. These are just representative of the many who hunt here. There are similarities, but luck appears to be the least common circumstance.

The 1990 archery season was less than an hour old when Dennis Beck shot the largest of the 15 deer he has taken—with bow and gun. It was less than 10 minutes walking time from his rural home in Luzerne County when the 11-pointer came by his stand and offered a 25-yard quartering rear shot. The deer actually ran past Beck's tree stand before folding less than 30 yards away. The time was 7:11 a.m. Even so, Dennis, 36, waited 15 minutes before approaching the 176-pound buck, even though it never budged after dropping.

The deer may have been pushed to him as Beck's neighbor appeared shortly and was available to help move the big deer from the woods. The buck had been reported only once, by Beck's brother-in-law, so it was the fortunate hunter's first sighting of the trophy.

Dennis was shooting a 70-pound Pro Line Point Blank LTD with a 27-inch aluminum shaft and a 125-grain Thunderhead, 3-blade head. He utilized an overdraw and a peep sight. The antlers, with a 16½-inch inside spread, scored 125⅞.

Bob Kirschner, nationally renowned for his bowhunting prowess and expertise with the use of deer scents, took a 10-pointer last year that turned out to be his sixth Pennsylvania Pope and Young whitetail. The one he best remembers of 40 he's shot across the nation, is the 1988 buck shown here, because his son, Mike, age eight, was involved.

It was Mike who had spotted tracks of a big deer near their Westmoreland County home, and he and his dad scouted the area on the Sunday of the first weekend of the season. Bob was in his tree stand the following afternoon, after spreading curiosity scent in the nearby area. Before long four does came to the stand, but another deer was heard walking away in the leaves just out of sight. Use of a deer grunt call brought the big one in, nose to the

ground, and provided a quartering uphill shot at about 25 yards. An instant downpour made it advisable to follow-up the shot immediately. The blood trail was soon washed away, so Bob returned and got Mike for assistance. The animal was recovered at nightfall. It scored 138⅔ and weighed in at 178 pounds.

Bob was shooting a PSE, 72-pound Lazar Flite bow with 2216 aluminum arrows and Anderson 105 3-blade heads. He uses a finger release. Mike is counting the months until he can become a bowhunter.

I had less than a mile to go to contact Robert Markle, Berwick, who downed a most unusual 8-point buck last year, hunting near Orangeville, Columbia County. Although the heavy-bodied buck was not weighed, it was generally agreed that the animal was nearly 170 pounds. The large antlers were officially scored at 145⅔ Pope and Young points.

Bob, 44, had tried bowhunting but gave up 10 years ago after coming up empty for five seasons. He was back at

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FAMED BOWHUNTER Bob Kirschner considers this Pennsylvania buck, his sixth Pope & Young trophy, to be his most memorable. His young son Mike found the big deer's tracks near their Westmoreland County home, and Bob killed the buck a couple days later.

it last year, though, and had chosen a spot to place his tree stand on the first Saturday of the season. He was late getting to his area, however, and left the stand in his vehicle. Within about 20 yards of his planned stand, he found a blowdown across the trail that looked promising, so he sat down.

Just as he spotted some deer heading his way, the log broke, sending him down on his backside. The deer kept coming, and Bob saw they were being led by a big buck. The deer stopped on the trail ahead, right at the spot where Bob had previously planned to stand. He carefully worked his way up to a kneeling position and drew back. Just as he released his shot, the buck spotted movement and jumped. The broadhead caught the femoral artery, though, and the animal was down in short order.

Although Markle usually gets a deer during a firearm season, this one taken with the bow is his finest. He was shooting instinctive, with no mechanical release, and a 60-pound Darton compound with Easton XX75 arrows tipped with a Wasp broadheads. The time was 6:50 a.m.

Cyrus Steigelman, 27, Boiling Springs, takes his bowhunting seriously. The planning and preparation that went into taking the 10-point he got with a bow on the last Friday of the rifle season would do credit to General Schwarzkopf.

Cy got into archery with a second-hand bow in June 1989. The following January he moved from the target line to the woods and shot a doe. Cy, who takes scouting as seriously as his equipment, replaced his old bow the following August with a 72-pound Pearson Spoiler compound cam bow, a Fletcher-hunter release, and overdraw for 26-inch arrows. Cy alternated scouting in Michaux State Forest with practice, and



in the archery season he passed up does and small bucks. Even later, in the firearms season, on December 7, a large spike tempted him. Cy's determination was finally rewarded with the wary 10-point that swirled too late to avoid the arrow at 23 yards. Despite the loss of one antler tine and one that had been broken, the rack still scored 98 3/4 points.

Just to prove that he was on a roll, Steigelman filled his bonus tag by dropping an antlerless deer on January 5, 1991.

Interestingly, two of the bucks reported here were taken in the afternoon, two in the morning. Two archers used no mechanical release, and each hunter was alone when he scored. Half the bucks were taken from ground stands, two from aerial perches. All shots were taken at 25 yards or less. There are other similarities, and differences. In each case, whatever luck was involved was supported by practice, scouting and confidence in whatever equipment was employed as well as the ability to back it up.



HUNTERS SOMETIMES have to make the best of fleeting opportunities, and the firearm has to be properly set up for each individual shooter. For scoped rifles, the scope must be far enough back to allow proper eye relief—for a full field of view—and a comfortable head position in which the neck is not craned forward.

The Time Factor

By Don Lewis

Photos by Helen Lewis

“WOULD YOU CHECK the scope on my deer rifle?” a phone caller asked. “My eyesight started to deteriorate about three years ago, and I began having difficulty using open sights. A friend said that a scope would solve all my sighting problems. I took his advice, but I’ve had nothing but problems since. Maybe I bought the wrong power scope.”

“What makes you think it’s the wrong power?” I asked.

“Well, I can’t see through it when I raise the rifle to shoot. By the time I get a full field of view, the deer is gone. So far I’ve lost shooting opportunities at a buck and two does. I guess I made the mistake of buying the wrong power setup. I installed a 4x scope, when a 4–12x or 3–9x would probably have been better.”

“Power isn’t the sole reason you can’t see a full circle of view. I think your

problem is related more to the way your scope’s mounted than the power. In fact, a 4x scope is more than adequate for nearly all whitetail deer hunting in Pennsylvania.”

When he removed his rifle from its case, I could see the problem instantly. The scope was shoved as far forward in the mounting rings as possible, and the reticle was out of focus and not square. To compound his problems, a thick spongy recoil pad had been installed, complete with three heavy plastic spacers. While I was examining the rifle, the owner explained that a friend had in-



STOCK FIT is of paramount importance to the shotgunner. Correct fit allows the shooter to mount the scattergun consistently. A stock that is too long or too short will hinder the gunner, who has little or no time to think about sight picture.

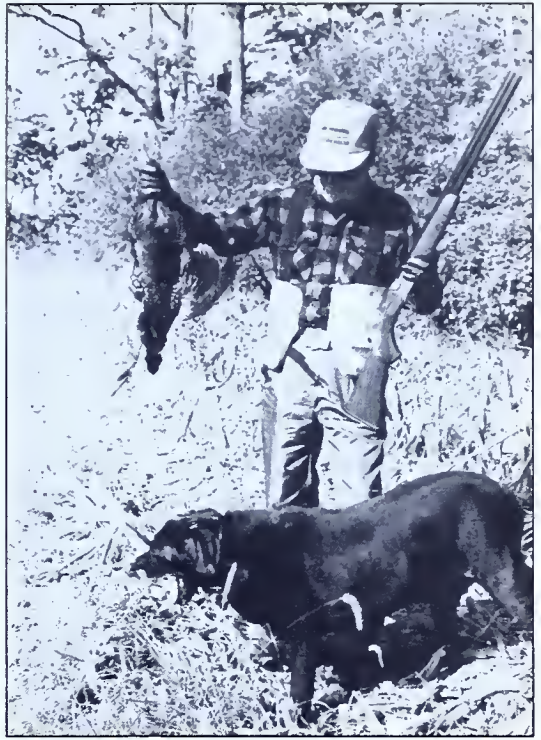
stalled the scope and added the plastic spacers to keep the scope from hitting him in the face. A quick measurement showed stock length from the face of the trigger to the end of the recoil pad was 15½ inches. It was the longest stock I had ever seen.

Back in the early 1960s, when I operated a scope mounting/sight-in shop, solving scope mounting problems made up a good share of my business. Most were simple: wrong bases for the action, reticles not square, screws missing or not tightened, and paper shims that had to be replaced with brass or plastic were the most common ailments. Then there were the times I was faced with scope mounting setups that made no sense, like the one I just described. Why the man had hunted three seasons before seeking help boggles my mind. It still ranks as the poorest mounting job I ever encountered.

With all the diplomacy I could muster, I explained that the scope was not properly mounted for him and adding length to his stock had made matters worse. He listened politely, but then told me that the scope was mounted solidly and looked properly mounted to him. He emphatically pointed out that his only problem was finding his target. His own words were: "It takes forever and a day. Could you help?"

After I pulled the scope back in the mounting rings, squared and focused the reticle, and removed the entire recoil pad assembly, he had a better idea of what I meant about his scope not being properly mounted. Fortunately, I had a Redfield extension ring of the same height as his rings. When I replaced the front clamp ring with the extension ring it brought the scope back another two-thirds of an inch.

I then replaced the cumbersome recoil pad and spacers with a thin plastic buttplate to get him through the remainder of the big game season. My



advice, though, was to remove a full inch of stock and install a solid half-inch recoil pad after the season was over. As he tossed the rifle to his shoulder a dozen times, he admitted that he could see instantly through the scope. He was a bit apprehensive about getting struck with the scope, but after firing several shots on my range, he felt perfectly comfortable with the new mounting setup. When he slipped the rifle back in its case he said, "The changes you made will help me overcome the time factor problem."

His words had little impact on me at the time, but as the years passed I realized there really is a time factor problem. The longer I hunt and shoot, the more I come to grips with this Achilles' heel in shooting. Perhaps a majority of hunters do not realize there is such a thing as a time factor, but every hunter has been its victim. Whether we recognize it or not, the time factor is a major reason why we fail in hunting.

Roaring out of a grapevine entanglement, the grouse offered a wide open shot. Unfortunately for me, the bead caught momentarily on a vine and the shot was lost. That 1-second loss is a perfect example of the time factor. A

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GAME NEWS

For a Friend . . .

friend failed to push the safety on his 30-06 when a buck appeared. By the time he realized his mistake, the buck had disappeared in a thicket. It was only a matter of several seconds, but it qualifies as a time factor problem. An insufficient lead on a crossing rooster put my shot charge behind the target. My lead was too short to allow enough time for the shot charge to intercept the speeding bird.

A hard-pulling rimfire trigger cost me a trophy-size gray squirrel. It was a clean shot, but the gray moved before I managed to get the shot off. The first deer season after being discharged from the military, I used a borrowed 8mm Mauser. I didn't fire a shot; I didn't even spend a few seconds testing the trigger pull.

Costly Mistake

I would soon learn what a costly time factor mistake I had made. Early in the morning I spied a buck entering a thicket a good 100 yards away. All I had to do, I thought, was wait for an opening and then fill out my tag. Truth is, when the rifle wouldn't fire, I thought the safety was on. I even lowered the rifle and made a visual check. The safety was in the "fire" position, but the hard-pulling trigger had been my downfall. Those few seconds cost me a shot, but I gained a new insight on the importance of having a clean, crisp trigger pull.

The loss of time is usually due to a defect in the sighting arrangement, stock length or a hunter's mistake, such as failing to feed a live round into the chamber after loading. When an elderly hunter asked me to remove his scope and install iron sights, my curiosity forced me to ask why he wanted to get rid of a top quality scope. Without

blinking an eye, he claimed the scope was worthless because he couldn't see through it. After several minutes of examining his outfit, I discovered there was nothing wrong with the scope mounting setup except that the reticle was out of focus for him.

The truth came out when the old gentleman admitted he had no faith in a scope and knew it was impossible to use a scope as quickly as open sights. The scope was a gift from his son, and he had left it on just to please him, but, after failing to get a shot at a doe, he figured enough was enough; the scope had to come off.

When I learned he had never really tried to use his new sighting device, I spent a few minutes pointing out some advantages a scope offers. A half-hour later, on the range, he was a changed man. He could not only see through the scope instantly, he also shot pretty darn well to boot.

Another case of failing to practice involved a friend who had used a Winchester 243 Model 70 for many years. Wanting more power, he switched to a 30-06. When a buck trotted out of a hemlock stand less than 40 yards away, the hunter fired almost instantly. He missed, but the buck stopped. Without taking his eyes off the deer, he lifted the bolt handle and pulled the bolt back until the empty case extracted. Working almost silently, he closed the action, aimed and pulled the trigger. Instead of hearing the roar of the '06, only the sound of a firing pin falling on an empty chamber broke the morning stillness. Being unfamiliar with a long action rifle, he failed to pull the bolt back far enough to pick up a fresh cartridge. By the time he did reload a round, the buck was in high gear, heading for the hemlocks. His hastily fired second shot failed to connect.

At a gun seminar, a petite female hunter complained that the stock was too long on her new 20-gauge autoloader. The thick recoil pad caught under her arm when she raised the gun. She wanted to know if it was possible to shorten the stock. Her husband



LEWIS SAYS that in proper scope mounting the end of the eyepiece (ocular) should align with the pistol grip. A good rule of thumb is to have the ocular at least two inches behind the trigger. Stock length is also a consideration when setting up a scoped rifle.

and brothers had told her that reducing stock length would destroy the shotgun's balance. They claimed if a shorter stock would have been needed, the factory would have installed it.

Without exaggeration, I have heard this "out of balance" theory hundreds of times. I have also heard more than once about the factory knowing exactly what length is best for everyone. To both of these ridiculous theories I say, emphatically, "hogwash." Shortening a stock by an inch or so reduces the total weight of a shotgun by about three ounces. A competitive shooter might spot the difference, but most small game hunters will never miss the lost weight nor will it significantly affect the overall balance.

The belief that factory stocks are universal in design and suitable right out of the box for all hunters is also a long-time myth. No two hunters are exactly alike. What fits one hunter to the nth degree will not be right for another. The same is true with hunting coats, gloves and boots. A shotgun stock should be shortened or lengthened to fit the user. It's literally impossible for a person to adapt to a shotgun stock that is too long or short.

I told her rather pointedly that since it was her shotgun she should forget the

bad advice she'd been given and have a competent stockmaker or gunsmith remove her recoil pad and 1½ inches of wood, and then add a thick rubber recoil pad with a half-inch solid pad. That would shorten the stock by about 1½ inches. To show what she could expect, I had her toss my SKB 20-gauge over/under to her shoulder a half dozen times. All my hunting shotguns have a pull length, from the face of the trigger to the end of the recoil pad, of 13¾ inches.

The SKB demonstration convinced her, but I'm not certain her spouse agreed. I'm happy to report that a year later a letter explained how grateful she was for the advice. The stock had been shortened, a thin recoil pad installed and, best of all, she was enjoying a high degree of field success. To add icing to the cake, she and her hubby are still happily married.

The time factor affects every hunter. A tiny fraction of these demons is beyond our control, such as a shotgun's bead catching on a vine. However, from nearly 60 years of gun handling, I can attest that familiarizing ourselves with the guns we hunt with and ironing out possible problems will help every hunter overcome the time factor problem.

In the wind

j. scott rupp



A bull elk radio-collared in 1987 by Montana game biologists turned up in Independence, MO—three years later and 1,800 miles away. Officials were mystified when elk No. 964's signal disappeared shortly after its collar was fitted. In the spring of 1990, elk sightings were reported in Independence, near Kansas City, and Missouri conservation officers finally were able to tranquilize the bull in October. It took calls to a dozen states and two Indian tribes before the elk's origin was ascertained. Montana biologists theorized the bull had followed the Missouri River to reach Independence.

Idaho pheasant hunters experienced some of their best days afield in years during the 1990 season. Biologists had predicted a good year when spring and summer brood counts were the highest since 1985—in some areas twice the number observed in '89. Some of the credit goes to the state's habitat improvement program, in which more than 30,000 private acres are enrolled. Idaho's game department has cooperative agreements with more than 1,300 landowners to grow food plots and cover crops.

A Nevada gold mining operation was recently fined a half-million dollars by a federal court for killing hundreds of migratory birds. For three years the firm discharged cyanide-laced water used in its heap leach mining process into uncovered ponds. More than 900 ducks, hawks and other birds were killed between June 1989 and July 1990. The company will pay half of the penalty to the Nature Conservancy, a group dedicated to preserving migratory birds and their habitats.

The Arkansas Game and Fish Commission is utilizing an automatic telephone answering program that gives out general hunting and fishing information at the touch of a button. Sportsmen dial a main number and then enter four-digit codes to receive answers to routine questions about hunting and fishing seasons, hunter education, shooting ranges, licensing information and the like.

Michigan conservation officers are offering a \$3,000 reward for information that leads to the arrest of snowmobilers who killed 81 ducks on Houghton Lake. Snowmobilers charged a flock of mallards congregated on a small area of open water and repeatedly flushed the birds each time they landed on the ice. When the birds became too exhausted to fly off, the joyriders ran them over.

For the first time in 40 years, gun hunting was permitted in East Texas Hunt County. During the nine-day season, 48 bucks were taken and the average field-dressed weight was 117 pounds. It was significant to Texas wildlife officials because the harvest indicated that the area's ecological type, Post Oak Savannah, can support quality animals if the deer reach full maturity.

The federal government's plan to reintroduce the wolf in Yellowstone National Park is being opposed by a citizen's group. The No-Wolf Option Committee is composed of outdoorsmen, stockmen, outfitters and other people in the Yellowstone area who believe the wolf's presence would be detrimental to the region's economy and ecosystem.

An outbreak of avian botulism in the western U.S. took a heavy toll on waterfowl last year. The disease was blamed for the deaths of 75,000 ducks in Utah; 11,000 in South Dakota; 7,000 in Colorado; and more than 4,000 in Kansas. Puddle ducks were hit hardest by the disease, which is commonly transmitted by maggots eaten by waterfowl.

ANSWERS:

- #2—Earthworms**
- #7—Remain motionless**
- #8—On the ground**



Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. If you are not sure of which maps you want, write for a PGC map order form.



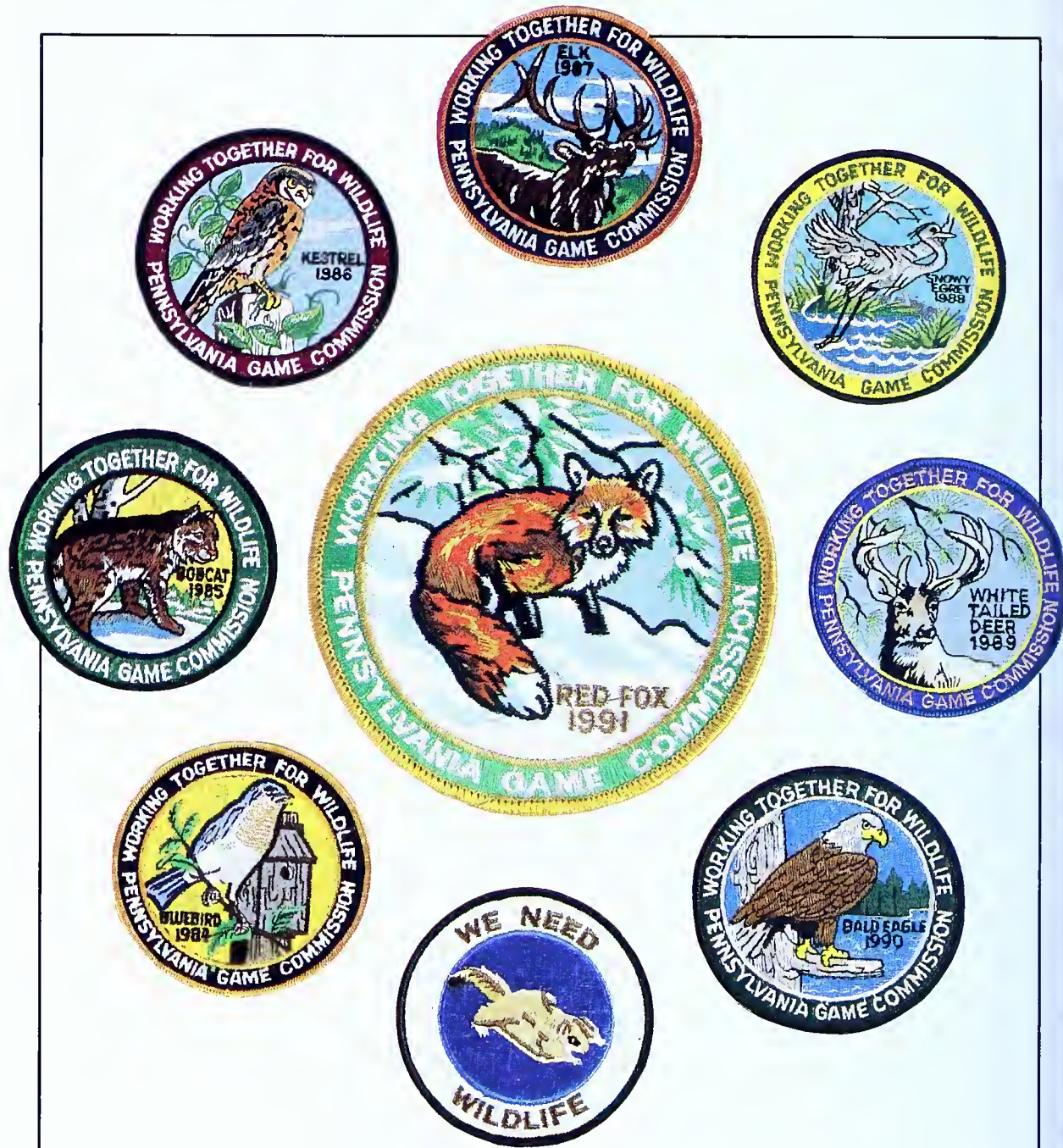
At the Den, featuring a pair of red foxes by Lancaster County artist Laura Mark-Finberg, is the ninth limited edition fine art print available through the Game Commission's "Working Together for Wildlife" program. As with previous editions, *At the Den* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125, delivered; framed prints are an additional \$97.50. Limited numbers of the 1986, '87, '88, '89 and 1990 prints, featuring the kestrel, elk, egret, white-tailed deer and bald eagle, respectively, are still available. Invest in the future of Pennsylvania's wildlife—and yours, too. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

PENNSYLVANIA GAME NEWS

JULY 1991

ONE DOLLAR





Working Together for Wildlife patches have proven to be extremely popular over the years. The first two in the collectible series, the osprey and river otter, issued in 1982 and '83, respectively, sold out quickly, and supplies are limited for the remaining patches. Funds derived from the sale of WTFW patches—and fine art prints—are used to support nongame wildlife research and management programs. Patches cost \$3 each, delivered. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

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FEATURES

Saturday Morning Memories	3
By D. D. Fox	
Double Time	6
By John E. Ross	
On Her Own	11
By Carol L. Sipos	
Hunting Is a Booming Business	14
By Joe Kosack	
Hunting With Your Eyes Closed	20
By Charles E. Branthoover	
The Thrill of the Hunt	24
By Steve Kleiner	
Lending a Helping Hand	27
By Dan Brauning	

NEWS

Field Notes	28
Conservation News	33
Books in Brief	43
In the Wind	64
By J. Scott Rupp	

COLUMNS

To Each His Own (Another View)	41
By Linda Steiner	
Outdoor Wildlife Learning	44
By Bill Einsig	
Fun Games	45
By Connie Mertz	
WCO Diary	47
By Keith A. Snyder	
Thornapples	51
By Chuck Fergus	
Start Sometime (Archery)	55
By Keith C. Schuyler	
The Varmint Rig (Guns)	59
By Don Lewis	

COVER PAINTING BY ROD ARBOGAST
(Cover Story on Page 13)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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The Future's In Their Hands

THIS ISSUE of GAME NEWS is going to a particular group of people—the 1991–92 class of Hunter-Trapper Education students. An extra 50,000 copies were printed for distribution at hunter education classes. Inside each is a special subscription blank entitling the students to a one-year GAME NEWS subscription for only \$5, almost half off our regular price. We're hoping this offer will encourage youngsters to get more involved in hunting and related shooting sports, wildlife conservation and all the other aspects associated with the outdoors.

Compared to a generation ago, more kids are growing up in urban environments, all too often in single-parent households. As a result, many young folks who want to hunt, trap and enjoy other wholesome outdoor activities never get the opportunity. This GAME NEWS offer is just one of several things the agency is doing to fuel the interest of young outdoorsmen.

What do we know about today's hunter-ed students? In 1990, the North American Hunter Education Association and the University of Wisconsin-La Crosse recently surveyed students who had taken hunter-trapper education classes in 1985. The purpose was to evaluate the students' participation and attitudes about the sport five years after taking their classes.

For Pennsylvania, 574 students (1 percent) were mailed a questionnaire. Returns were received from 336 (58.5 percent). Following are just a few of the findings based on those returns.

First, 6.56 percent of those who attended a class indicated they never went hunting. Of those who did hunt, 63.2 percent hunted the year they took the class. From then, participation jumped to about 85 percent for the four following years. The person responsible for introducing the respondents to the sport of hunting were father/stepfather, 83.0 percent; grandparent, 4.0 percent; other adult, 5.7 percent; and friends, 3.7 percent. Siblings and others accounted for the remainder.

A ranking of their reasons for hunting are nature appreciation, 69.0 percent; food, 15 percent; solitude, 11.5 percent; and companionship and outdoor skills, 4.5 percent. In response to two other questions, 88.9 percent expect to be hunting five years from now, and 49.7 percent expect to be hunting more frequently. The two most common reasons for not hunting are difficulties in finding time and places to go.

For the most part, Pennsylvania's Hunter-Trapper Education classes are comprised of students 12 or so years of age, eligible for the first time to hunt here. Typically, therefore, according to this survey, students were male (93.5 percent), 19 years of age or younger at the time of the survey, had never been married, and live in either the country (rural) or small towns (under 2,500). Most (94.1 percent) were still attending or had completed high school.

As for game hunted, 88.3 percent hunted rabbit and squirrels; 38.4 percent participated in the archery deer seasons; 76.5 percent hunted upland small game (pheasant or grouse); 34.6 percent, migratory birds; and 47.3 percent hunted raccoons, foxes, woodchucks, etc. Not surprisingly, the most popular form of hunting among these 5-year veterans of the sport was big game hunting, presumably deer.

Hunting has been a fundamental ingredient in Pennsylvania's culture, and it will certainly continue to be so. But society is changing. And to help ensure the future of hunting and our wildlife resources, it's paramount that wildlife managers stay abreast of and adapt to these changes. Encouraging young sportsmen to subscribe to GAME NEWS is one such way that will ultimately benefit us. —*Bob Mitchell*



THE BIG OLD central powers that used to fill the hollow with their rhythmic booming as they pumped the wells are gone; electric pumping jacks now dot the hillsides where giant tin buildings once stood. Most of the pumpers hunted while on the job. It was only natural to carry a shotgun or rifle to work while they spent the day in the woods.

SATURDAY MORNING MEMORIES

By D. D. Fox

DAWN IS JUST breaking as I settle in against a huge red oak. The eastern sky blushes a light pink, and the horizon is streaked with dark purple clouds. A light breeze rustles the few remaining leaves on the surrounding hardwoods. Except for the occasional chuck of a chipmunk and the chirping of some chickadees, the woods are silent.

And that's what catches my attention.

I have hunted squirrels in this hollow for more years than I care to admit. And before that I followed my father here and on occasion my grandfather. But

they are both gone now. So now I hunt here alone.

When I use the expression alone it means more than just the fact that my father and grandfather are gone. So, too, are the big old central powers that used to fill the hollow with their rhythmic booming as they pumped the wells that produced the precious greenish-yellow gold — crude oil. Except for a few run by independent producers, the big old noisy one lungers are now silent.

They have been replaced by the whir and hum of electric pumping jacks. More efficient and cheaper to run, the

DEER-DAMAGED FARM SEASON EXPANDED

In its second year, the deer-damaged farm hunt will expand to 32 days. The season will run from December 26 to January 25 on farms designated as areas of special concern. Last January 2,674 antlerless deer were taken on 635 farms. Enrolled farmers report more than 35,000 hunters participated in the special 13-day antlerless deer season extension.

pumping jacks now dot the hillsides where giant tin buildings once stood.

For the most part, the old powers died a slow but steady demise. Each year as I entered the hollow to do some preseason scouting I would hear fewer and fewer of them running. And then, as production began to drop—along with the price of crude oil—they stopped running altogether. The leases were shut down; engines stripped for parts to keep the few remaining engines running on other leases. Next the huge tin buildings that housed the engines were sold and torn down to become barns and sheds and anything else the buyers could think of.

So Do I

When asked, most pumpers will agree that electric pumping jacks are easier to operate and more efficient. But the older men who pumped the powers still prefer the central power. Even though the old powers had to be started each day and the wells hooked on in a certain sequence, as opposed to the electric pumping jack that is completely automatic, the older fellows still prefer the old way. And so do I.

Pumpers were, and often still are, experts on the local wildlife populations on their leases. It was unheard of to hunt on a lease without first stopping to talk to the pumper. Most were more than happy to share their stories about deer that had become regular visitors to certain areas, or about a flock of turkeys they had seen. And the pumpers were

always easy to find. More often than not they were sitting inside the power reading the paper or a paperback western.

Some pumpers even unintentionally attracted wildlife by planting small vegetable gardens and fruit trees close to their powers. When this was the case, hunters were usually more than welcome.

Most of the pumpers hunted while on the job. It was only natural to carry a shotgun or rifle to work while they spent the day in the woods. I remember one pumper who used to take a chair outside and sit where he could watch down three different rodline rights-of-way. Each year he would have his deer before nine o'clock on opening day.

To a young boy, the rodline rights-of-way were an assurance that you couldn't become lost. As my father would sit quietly and patiently waiting for a squirrel to appear I would almost always grow restless. With his blessing I could wander off to see what there was to see. I never worried about becoming lost for all I had to do if I "got turned around just a little" was follow the rodline back to the power. And there I would sit, talking to the pumper until my father arrived.

Each power seemed to have a personality all its own. After a few trips into the hollow a person could identify which powers were running and which pumpers were working. Each engine had its own cadence and speed. Some ran so slow they sounded as though they were about to stall. They would boom, boom, boom and then miss several times only to load up with fuel and take off again with a tremendous bang. There were others that ran just as steady as the ticking of a clock. One, which we drove by on our way in each time, ran so fast it sounded as if it was going to run right off the hill above us and into the valley below. I remember squeezing my eyes shut as we drove under the rodlines. To the best of my knowledge it never did run away. But to a small boy it often sounded that way.

There was a knack to getting a power to run evenly. If the wells weren't

ONE MIGHT THINK the loud engine noises would scare most animals away, but it never seemed to bother them. Deer would lift their heads in curiosity at the sound of the engine starting, then resume their activities. They grew accustomed to the sound.

hooked on in the right order, it was readily apparent by the sound of the engine. They would run with an ebb and flow sound. Whenever my grandfather, a pumper himself, would hear this he would comment, "Must be a green man on the job." More often than not, he would go and show the new pumper what he was doing wrong, and they then would spend the day swapping stories about the oil patch.

As the day wore on and the wells would pump off, pump all the fluid in the well, the cadence of the engines would begin to pick up as the load lightened. This was a signal to the pumper that it was time to hook on wells that weren't yet pumped and to unhook the ones that were done. This was quite convenient, especially if the pumper was away from his power while hunting or, in the summer, picking blackberries.

When the well locations and rodline rights-of-way were cleared, wildlife benefitted. Wild strawberries, huckleberries and blackberries grew in abundance where the sun could now reach. Some pumpers considered those wild delicacies their private property and cursed the animals for helping themselves. Even with competition from the animals, many quarts of berries were harvested each summer as they found their way into jams and jellies and fresh baked pies.

One might think the loud engine noises would scare most animals away, but it never seemed to bother them at all. Deer would lift their heads in curiosity at the sound of the engine starting and then resume whatever it was they were doing. I suppose, like anything else, they grew accustomed to the sound and realized it meant no harm.

The rise of the price of natural gas—for which those engines had a voracious appetite—and the drop in the price of



crude oil decided the fate of the old central powers. I still enjoy talking to the pumpers whenever I get the chance, but they are harder to find now as they drive from well to well in four-wheel drives and ATVs. They never seem to stay in one place very long, stopping only long enough to check the well before moving on. I miss the days when you could go inside, sit down to get warm, and swap a story or two.

Faint Boom

The sound of a squirrel scampering through the leaves shakes me from my thoughts. But another sound, off in the distance catches and holds my attention. I can hear the faint boom, boom, boom of an old power as it starts up. The engine lugs as the pumper throws in the clutch and then evens out to a steady rhythm. For just a moment my father and grandfather are sitting just up the hill again. My father watches the squirrel as my grandfather listens to the power. It's a wonderful feeling. I miss them. All three.



Double Time

By John E. Ross

LIKE TO HUNT with a rifle? Enjoy making an off-hand, 100-yard shot at a target no bigger than a soda can? And what about a summer evening's walk afield as the sinking sun pulls away the day's heat and humidity? That's what hunting chucks is all about. And you don't need a specialized varmint outfit to do it.

Too many hunters leave their rifles standing in the rack, from one deer season to the next, waiting for the leaves to turn and the bucks to rut. As a result, most miss six months of excellent hunting. Ever since I starting handloading I've been getting double duty out of my deer rifles by using them on woodchucks. Hunting chucks is great for the soul. Also, I've found that farmers who welcome me in their fields and pastures in the summer are quick to invite me back for birds and bucks in the fall.

For years my only rifle was the Winchester Model 94 30-30 that Grandpop bought the year my dad was born. By the time it was passed down to me, the bore was pitted and most of the blue gone from the 26-inch octagonal barrel. To get reasonable accuracy I began handloading. And with chucks being more prevalent than deer, I tried out light weight hollow points.

It wasn't easy finding a formula to get those stubby little 110-grain bullets to shoot with any accuracy out of the 94's worn barrel, and the rifle's iron sights didn't help any either. The best it would do was two-inch or so groups at 100 yards.

The first chuck I shot had wandered out of a honeysuckle draped fence row, sat up to survey the evening, and was greeted with a little present from the folks at Sierra. The entrance wound was thumb-size and the exit was about the

size of a lemon. There was no doubt in my mind that, from 75 yards, the bullet had done its job.

Since the little experiment with the old 94 two decades ago, I've shot hundreds of chucks with rifles chambered for cartridges better suited for bigger game.

Now, with factory rifles stocked in fiberglass and other synthetics, and vastly improved quality control, one doesn't need a heavy-barreled varmint rifle to hunt chucks. Topped with a good 3-9x scope, almost any bolt action, falling block single shot, or even pumps will shoot very well.

One afternoon, down in Cumberland County, I was talking with Bob Kurtz whose alfalfa fields seem to provide more fodder for chucks than cows. Bob's a hunter who uses a 308 Winchester for deer, and he questioned my plans to hunt his woodchucks with a Remington 700V in the same caliber as his deer rifle.

Bob knows better than to hunt woodchucks with bullets weighing 150 or 180 grains, but I assured him that the 125-grain spitzers I planned to shoot were "varmint" bullets that were not likely to ricochet. Dubious, he gave me permission to hunt, but warned me to watch out for his kids, livestock and buildings.

Not 15 minutes later I spotted a fat chuck. It was a bit below me about 125 yards away. It was an easy shot, and I took it. But instead of that satisfying "pop" of a bullet finding its mark on a chuck, I heard nothing. A miss, I guessed, because one of the things I do best is miss.

When I checked, however, I found the chuck by its hole, deader than a duck pond at high noon. But behind



This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

him, in the shale hardpan, was a streak. The shot had been a safe one I was certain, but I was nonetheless disturbed about the possible ricochet.

The evening after the ricochet at Kurtz's farm, I realized I'd been suffering from mental myopia. In Pennsylvania, we think of chucks and crows as varmints. Out West, however, coyotes and similar, bigger pests fall into the varmint clan. Some of the alleged varmint bullets I'd been shooting at chucks are no doubt designed for those larger varmints.

Perspectives

As I sat there that evening and thought about bullets and chucks, a host of experiences began to fall into perspective. The year before, Tom Fowler, a chuck hunting preacher from Reading, and I were walking over a farm in Berks County when he spied a chuck a couple hundred yards away. Behind the chuck, the ground sloped gently up hill, backstop enough, we thought.

Tom's an Old World hunter, a fan of

German style guns, with double set triggers, splinter forends and side paneled stocks. He was hunting with a Mannlicher-Schoenauer in 243 and using 85-grain spitzers. Off-hand, he centered the chuck in the big Balvar scope, set the trigger, and then touched it off. The report was followed by the whine of a ricochet. At the time I thought the bullet had struck a rock, but after my recent experience at Bob's I wasn't so sure.

A few months after the episode at Kurtz's farm, Tom and I were back in Berks County. I was sitting at the edge of a field of ripening wheat, holding a 243 sporter and watching a scattering of chuck holes in a deep swale below.

From behind, I heard the swish, swish of someone walking through the wheat. I couldn't imagine Tom doing that as we walk around rather than through grain fields. I listened as the sounds approached from my left, and just as I turned my head, out of the wheat, not 15 feet away, waddled the fattest chuck I've ever seen.

He saw me and froze. I aimed the rifle at him, pulled the trigger and that was that. Later, though, I told Tom the chuck had attacked me from my blind side and that it had nearly wrestled the rifle away before I could get a shot off. Together we shot four chucks that afternoon and missed a couple of others, and the 75-grain hollow points we were using showed no tendency to ricochet.

We'd both owned, Tom and I, the same Ruger 77 in 257 Roberts. Ned Roberts' round is a wonderful cartridge, perfectly suited for deer and varmints in southern Pennsylvania's farm land. The Ruger had a very deep throat, and I'd gone to longer and heavier bullets to improve accuracy.

But after the ricochet on Bob Kurtz's farm, I decided to sacrifice a little accuracy in the 257 for safety's sake: I dropped my 90-grain varmint load in favor of 75-grain hollow points.

I spent the bulk of that summer wringing out 308 Winchester varmint loads, shuttling back and forth among loading bench, Shorty's Cumberland

ADULT GROUNDHOGS stand about 18 inches high and are about eight inches wide. That vital area works out to about one foot by six inches. Sometimes one will see only a head peeking over a dirt rim at a burrow, but that's still a pretty good-size target.

Valley Range in Plainfield, and any newly mown or early growth chuck-infested fodder field I could find. My wife claimed I'd "gone to the hogs," and she was probably right.

From past experience I knew that 30-caliber 110-grain hollow points in a 30-06 are great for varmints. The second centerfire rifle I owned was a 1903-A3 Springfield, bought at a gun show for \$50, and "sporterized" with bent bolt, single stage trigger and scope. It was my "all round rifle" and I brewed loads for everything from crows to brown bear. One load was a hot number with 110-grain hollow points.

Railroad embankments and cuts, especially those with a southern exposure, are favorite sites for denning chucks, and often I'll hunt parallel to such abandoned rights-of-ways, but 100 yards away. On one such trek in September, I saw a whistle pig stretched full-out next to his hole. The A3 sporter delivered one of those little hollow points right on the snoozing chuck's schnoz. As if a grenade had exploded underneath, the resulting hydrostatic shock somersaulted that chuck 10 feet in the air.

Lightweight hollow-points, 110 to 130 grains, can be shot out of most 30 caliber rifles into an inch or so at 100 yards. That's plenty accurate for most chuck hunting. Despite what some guys write in slick magazines, most chucks are shot at less than 200 yards, and a load and rifle that holds an inch or so at a hundred is perfectly adequate.



Adult groundhogs stand about 18 inches high and are about eight inches wide. The vital or "sure kill" zone is about one foot by six inches when the chuck is standing. Sometimes you'll only see a head, peeking over the dirt rim around its burrow. Still, the head's a pretty big area when you compare it to the bullseye on sight-in target.

But accuracy is not the only criteria. The other question is whether the bullet expands in chucks. After finding an accurate load at Shorty's range, I'd test it on live targets.

Old Stone Fence

One evening I was sitting behind an old stone fence on a farm beyond Newville and saw a whistle pig come up out of its hole and begin to head dead away from me, munching on tender clover. With a 110-grain spire point, out of the 308, I tagged that north-bound chuck square in the south end. The entrance wound was pencil-sized and there was no exit wound. From 125 yards, that bullet delivered all its energy in the chuck.

Pete Shea, a science teacher and shooting pal, and I went back to Bob

Thoughts While Walking

For every man the world is as fresh as it was at the first day, and as full of untold novelties for him who has the eyes to see them.

—Thomas Henry Huxley

Kurtz's farm to test 130-grain hollow points in the 308. Accuracy from the 130s is outstanding and the bullet really blasted woodchucks or the dirt behind when we missed.

Naturally, the more powder you can put in a case, the higher the velocity and the greater the expansion of its bullet. But the law of diminishing returns comes into play in two ways.

Tack Driver

Tom got tack driving accuracy with 115-grain hollow points in his 7mm Magnum. But muzzle blast from the big seven was so severe, chickens stopped laying, cows went dry, cakes fell and we soon wore thin our welcome on a certain farm near Shartlesville. Not only that, but you can get twice as many loads out of a pound of powder if you shoot a 7x57 or a 280 Remington instead of a 7mm Magnum. Ditto applies in spades to 30-caliber magnums. Furthermore, there are simply no bullets above 30-caliber that are safe for chuck hunting.

Caliber is not as important as design when it comes to bullets for chuck hunting. Unless specifically designed

with thin jackets and hollow points or large lead tips, and driven at 3000 fps or better muzzle velocity, most bullets pass through chuck-size critters like grease through a goose. They'll expand enough for a clean kill but retain enough mass to go bouncing off around the countryside.

While all ammo makers list loadings for varmints, few of the loadings are really designed for game as thin-skinned as woodchucks. It's a shame, but once you go beyond the 24-caliber chamberings, there are few factory rounds suitable for chucks. Remington loads accelerators, sabot encased 55-grain .224 diameter bullets, in 308, 30-30 and 30-06 chamberings. Some rifles shoot them well, others don't.

In the end, if you want to hunt chucks with your deer rifle, it's best to handload your own ammo. That's not all bad, incidently. I don't know of many rifles that can't be made to shoot better by handloading ammunition tailored to the unique characteristics of a specific gun. And the more time a hunter spends shooting his rifle, the better shooter he becomes. And that's a skill that will always pay big dividends.

A WORKING Together for Wildlife print was awarded to the Blackman Plaza K-Mart, Wilkes-Barre, for its support of many Game Commission programs. Northeast Region Information and Education Supervisor Ed Sherlinski, second from left, made the presentation to area district manager Lou Mattioli, sporting goods department manager Al Mattias, and store general manager Jim Soucy.





FOLLOWING THE SHOT, we picked up a good blood trail and followed it through some high brush. Looking ahead, we located Jamie's trophy. Her first buck had been taken with one clean shot. That's what hunting is all about—passing on the necessary skills to help youngsters become safe hunters.

On Her Own

By Carol L. Sipos

WHEN MY daughter Jamie was eight or nine years old, I took her deer hunting. It wasn't much of an excursion, just long enough to show her what hunting involved; it was only a short jaunt from home. We walked down the railroad tracks to a nearby bottom and sat for awhile. She watched the squirrels play and had a thousand questions. We didn't see any deer. The entire time I chuckled to myself as I thought about our trip down the tracks.

I had walked slowly so she could keep up, and every once in awhile I would sneak a quick look to see how she was holding up. I noticed she stopped every so often to place a small stone on one of the rails. When I asked her why she was doing that she replied

with all the seriousness of a true outdoorsgirl, "So we'll be able to find our way back home again."

Over the years we shared many outdoor experiences and a lot of good times, but none that struck me as funny as her need to mark the railroad tracks.

Our hunting seasons passed, and Jamie developed into a serious hunter. She was in the field at every opportunity. I was rather lenient on allowing her to miss a few days of school during deer season, as long as her grades didn't suffer and she kept up with her work.

During the buck season of her 15th year, we hunted hard but had no luck. She had a doe tag to fill, though, and we started out with great enthusiasm.

On the first day of antlerless season,



I NOTICED Jamie was stopping every so often to place a small stone on top of one of the rails. I asked her why she was doing that, and she told me it was so we could find our way back home.

try for one. We selected a different area to hunt the next day. We parked the truck while it was still dark and headed to an area that I knew held a good deer population.

It wasn't long before we were in position and a group of five doe approached. They must have sensed us, though, and they took off before getting within shooting range. We decided to wait a bit and then circle out around the area, hoping to set up and see if the deer would come through an area I figured they'd travel.

Once we were in place, it took about half an hour until the group came through again. This time the wind was perfect, and they never realized we were there. When they were about 30 yards away, I advised Jamie to select her deer and take her best shot. Once again she held her fire.

After the deer were gone, I released my pent-up frustration by asking her, "Why, after all these chances that I've put in front of you, aren't you taking a deer?" She answered simply and to the point. "Mom, I just don't want to take a doe."

Okay, I thought, that's her prerogative. Still, I had to let her know how I felt. "Jamie, whether or not you want to kill a doe is your own choice," I said, "but you should have expressed that to me before I permitted you to skip three days of school, before I invested three days of hunting time to be with you, and before we even purchased a doe license."

I thoroughly enjoyed the time we spent together. Hunting always teaches us new things about the outdoors and wildlife. But often times the most important lessons hunting has taught me concerns my hunting partners. You have to admire the perseverance of a youngster who truly wants to take a deer on her own terms.

On opening day of the following season, I was posted with my youngest

we were posted on the side of a small hill. We could watch the bench below us as well as part of the thick cover that edged an old, overgrown field. Doe approached our location several times during the day, and at least twice Jamie had the opportunity for a good clean shot. She didn't take them.

I attributed it to beginner's reservations she may have felt. We finished up the day and later made plans for the next day's hunt.

Clear and Crisp

With a clear, crisp morning ahead, we started for our chosen stand. On the way in, we saw three doe gradually working their way down a small bank toward us. I whispered to Jamie, "Stand still, let them come closer and be ready to shoot." As they closed the distance, I said, "Pick the lead doe, take your time and make the shot count."

She let them go by without taking a shot; I couldn't believe it. Possibly a little "doe fever," I thought to myself.

Later that same day, she had another easy shot at a nice doe, but didn't take it. I was beginning to get a little concerned, but at the same time I realized that every hunter must make her own decision on when it's right to shoot. Jamie was a skilled shooter, so I didn't push her.

The second day of doe season was now history and we had one final day to

daughter, Joann. Jamie was now old enough to be hunting on her own. Jamie's stand was close enough that we would be able to hear each other if the opportunity came for a shot at a buck.

Joann and I were settled in on a bench that ran along the side of a steep ridge. Jamie was on the flat above us, about 60 yards into the woods that bordered a corn field.

As daylight sneaked in, we scanned the area. About 9:30 I heard a noise behind me and caught a quick glimpse of a solitary deer approaching along the top of our ridge. It must have caught our scent or my slight movement, because it headed away from us and toward Jamie's position. It must have taken the deer about 10 minutes to cover the several hundred yards to Jamie's area.

Joann and I heard one shot, and we both looked at each other and cried, "Jamie!" Soon after, I heard Jamie give a short call for me. Joann and I went to see if Jamie had scored.

"A buck came right through here, saw me and started running a bit," Jamie said. "I know I placed a good shot, and he was a spike." She was hunting with my Remington Model Seven, 7mm-08. She had put in lots of practice time at the range, and I knew she definitely could hit where she wanted.

We picked up a good blood trail and followed it through some high brush. Looking ahead, we located Jamie's trophy. Her first buck had been taken with one clean shot.

Jamie was ecstatic. "I just knew my first deer would have to be a buck, and I did it!" she exclaimed. She admired the deer and looked closely at the rack.

"Look, Mom, it's not a spike, it's a 3-point." Sure enough, the rack had three points and would have had four but for a broken tine.

We gave Jamie hearty hugs of congratulations and got down to the business of dressing the deer. Jamie dragged her buck to the truck and decided that she would stay so Joann and I could finish out the day.

As luck would have it, Joann and I hunted hard and had a great time, but didn't score that day. The trip home was accompanied by a buzz of excited chatter. We heard the details of the hunt at least six times by the time we pulled into the driveway.

Hunter's Heart

Later that evening, Jamie and I discussed the day's events. She told me something that really made my hunter's heart feel good. "You know, Mom, I was so excited to take this buck after so many years of learning how to hunt and trying so hard," she said. "But when you and Joann left me at the truck and I had time to admire the buck, it was so beautiful to me that I said a little prayer and thanked the buck for giving up its life to me."

That's what hunting is all about—passing on the necessary skills to make youngsters into safe hunters. Gaining the confidence that they're competent to be on their own is the next important step.

The feelings and attitudes concerning the wildlife we hunt aren't often played up in hunting stories, but they're certainly important to a young hunter who was definitely ready to hunt on her own.

Cover Painting by Rod Arbogast

The English setter is the most common of the three setter breeds—the Irish and Gordon being the others—and it's the dog most often associated with the upland grouse and woodcock coverts. In addition to being a fine pointer, the English setter makes a good house pet as well. For more on hunting dogs in general, see Chuck Fergus's "Thornapples" column, beginning on page 51.



IT MAY NOT be apparent to some, but hunting annually funnels millions of dollars into local, regional and state economies. While a little more than half of the expenditures are outdoor equipment purchases, much is also spent on transportation, food and other related costs. Less than 3 percent goes for licenses, stamps and permits.

Hunting Is a Booming Business

By Joe Kosack
PGC Information Specialist

ACCORDING TO Ma Bell, it's her third busiest day of the year, right after Mother's Day and Christmas. It's the opening day of Pennsylvania's annual buck season, when upwards of a million hunters call in with reports of their day afield. The main news item, of course, is whether or not they dropped a trophy whitetail.

Preceding days saw highways clogged as sportsmen and women journeyed to remote camps. Some stay with relatives, others bee-line for motels and boarding houses that have served as "temporary camps" for many deer seasons.

Roadside restaurants are packed with sportsmen, and the hard clomp of hunting boots on wooden floors resounds in small town grocery and sporting goods stores as hunters canvass aisles for food and gear. Lines of orange-clad nimrods stretch from telephone booths, motel desks and gas pumps—all to the echoes of ringing and beeping cash registers.

Many folks don't realize or appreciate the business opportunities and dollars that hunting annually funnels into local, regional and state economies. Most people, hunters included, see the sport only as a form of recreation and a way to obtain extra protein for the table.

UNDER THE Pittman-Robertson Act, federal excise taxes on hunting and shooting related equipment are distributed to states for wildlife management, land acquisition, hunter education and other important purposes. Through this program, the Game Commission annually receives about \$4.5 million.

Fact is, each year hunters pump millions into the coffers of commonwealth merchants.

According to the 1985 *National Survey of Fishing, Hunting and Wildlife-Associated Recreation*, the nation's 16.7 million hunters spent about \$10 billion that year—up \$1.5 billion from 1980. Yet, inversely, from 1980 to 1985, the number of hunters declined by nearly 700,000.

In 1985 (the year of the most recent U.S. Fish and Wildlife Service report) Pennsylvanians spent \$714 million on hunting equipment, transportation, food and lodging, and the various other costs associated with hunting. Of all states, Pennsylvania ranked third in monies spent on hunting and trapping. Texas led with about \$1 billion; California hunters spent \$825 million.

Far more hunting products and related accessories are on the market today than ever before. The desire for those products, coupled with inflation, is probably driving hunters to spend even more today than in 1985—probably in excess of a billion dollars. The infusion of hunters' dollars into local and regional markets creates countless jobs and supports a variety of businesses throughout the state.

An itemized breakdown of Keystone State hunters' expenses for '85 showed 59 percent went for hunting equipment; 25 percent for trip-related expenses; and 13 percent for magazines, club memberships and land leases. Only 3 percent was spent on licenses, stamps and permits.

The Game Commission is supported solely by hunters' dollars, timber and mineral revenues, and federal reimbursement monies generated by the Pittman-Robertson Act. The agency receives no general tax revenues; the entire costs for protecting, preserving and



Your purchase
of hunting equipment
supports
Wildlife Restoration

perpetuating the commonwealth's wildlife resources are borne entirely by that 10 percent of the population who comprise the state's hunters and trappers. Therefore, although only 10 percent of the state's citizens hunt or trap, everybody benefits from hunter expenditures.

In 1989, \$25 million in license fees accounted for about half the Commission's annual revenue. With hunters' money, the agency manages wildlife and buys public lands that provide outdoor recreation for everyone. Regardless of how one looks at it, hunting is more than a wildlife management tool—it's undeniably a thriving business. Sporting goods and department stores are stocked to their ceilings with equipment designed to improve hunting success and provide comfort from the elements.

But the money flow doesn't stop there. To keep up with the sport, hunters also spend millions on magazines, books and videotapes. In turn, they're encouraged to purchase scopes, binoculars, ammunition, cover scents, special clothing and much more. Staying abreast of the latest hunting technology (regardless of merit) requires money, and the evidence indicates

sportsmen everywhere are willing to spend what it takes.

The Eastern Sports and Outdoors Show is a good example of hunter interest. Held annually in the massive Harrisburg Farm Show Complex, the nine-day show (largest of its type in the nation) attracts close to 750,000 people. More than 900 exhibitors and equipment retailers converge from all corners of the United States and Canada. Hunters flock to the show to see and buy the latest hunting equipment available.

Outfitter Bookings

Over the years, outfitters have learned Pennsylvanians are eager to pursue hunting in other states. Many outfitters fill their annual bookings at the Harrisburg show. Show organizers contend hunters spend millions right at the show for equipment and contract millions more in future hunting trips.

More than a million Pennsylvanians hunt, and it is largely a male sport: one of every six Pennsylvania men hunt.

About 96 percent of the state's hunters pursue deer; rabbit hunters number about 620,000; 530,000 hunt pheasant and squirrel; and 425,000 hunt grouse. About 300,000 pursue fall turkeys, and another 60,000 hunt waterfowl. In 1985, Pennsylvania hunters spent an average of \$570 in pursuit of deer, bear and turkeys; small game hunters and waterfowlers each spent about \$100.

The February 1990 issue of the National Wild Turkey Federation's *Turkey Call* magazine reported that Pennsylvania turkey hunters spend more than \$40 million a year. The comprehensive study suggests Pennsylvania turkey hunters spend a yearly average of \$180.

In the late '80s, *Shooting Sports Retailer* magazine conducted and published research suggesting that, each year, 635,000 Pennsylvania hunters purchase factory ammunition; 237,000 buy hunting clothes; 152,000 get new guns; 122,000 buy boots and packs; 89,000, bows and arrows; 78,500, loading equipment; 77,000 purchase scopes; 49,000 Pennsylvania hunters

IN 1985 PENNSYLVANIA hunters spent more than \$78 million on guns and more than \$17 million on ammunition. Expenditures on scopes, handloading gear, decoys, archery equipment and other related items totaled more than \$42 million. While hunting is a no-frills sport for some, many sportsmen spend a lot of money pursuing the hobby.



bought dogs and associated equipment; 33,000, equipment cases and carriers; 30,000, decoys and game calls; and 22,000 purchased new camping equipment.

According to the publication's research, sportsmen here outspend the nation in archery equipment and hunting boots, and second overall in sales of guns, handloading equipment, and hunting clothes and optics.

In dollars and cents, the 1985 federal survey showed Pennsylvania hunters spent \$78.8 million on guns and \$17.8 million on ammunition in 1985. Another \$42.2 million went for archery equipment, scopes, decoys, handloading equipment, hunting dogs, knives and other equipment. In addition, resident hunters spent \$77.8 million on food, \$68.7 million on transportation and \$27.6 million on lodging. Non-residents, too, contribute to the state's economies as they pour into the commonwealth to take advantage of Pennsylvania's outstanding hunting opportunities.

Following the national trend, from 1980 to 1985 the number of Pennsyl-

vania hunters declined by 100,000. Yet, during the same period, average hunter days afield increased from 16 to 19. Proportionately, money spent on hunting also increased. It's thought the swell in hunter days afield stems from growing popularity of archery, flintlock and turkey hunting. Since 1970, archery license sales have gone from 153,935 to more than a quarter million in recent years. The number of muzzleloader hunters increased from 2,000 in 1974 to nearly 100,000.

Longer Seasons

To some degree, the rise in hunter days afield may also be related to longer hunting seasons. The bear, antlerless deer, winter grouse and rabbit, and spring gobbler seasons have all been substantially increased over the past decade. And, undoubtedly, increases in forest game populations have prompted hunters to spend more time in the state's woods.

For instance, each year tens of thousands travel to hunting cabins in the northern counties in pursuit of deer, bear and turkeys. The largest hunter

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migration occurs just prior to buck season when, according to PennDOT, traffic on state highways leading to the northern tier increases up to 35 percent. But does this advancing army of hunters have a significant effect on the various local economies?

Local Economies

The Potter County Recreation Bureau believes deer hunters pump about a million dollars into the area each year. In that county, with 4,800 hunting camps, it's not uncommon for gasoline sales to increase as much as 500 percent during buck season. The same holds true at grocery stores and restaurants. A Potter County motel owner says about 25 percent of his annual income is related to hunting.

But businesses don't have to be located in the state's northern counties to benefit from hunter spending; hunting occurs everywhere, even in the outskirts of Philadelphia. Moreover, as

hunters reside in every city, borough and township, it stands to reason hunters spend money on equipment and services throughout the state.

Sportsmen shop at local sporting goods and department stores for ammunition and other hunting supplies, and often have their deer and bear processed by local butchers. Meat processing is not tabulated in the federal survey yet it is known to be a big expense. Taxidermy and license issuing agent fees are also left out of the survey, although those expenditures impact our economy, too.

On average, 350,000 to 400,000 deer are harvested annually and, according to Game Commission biologists, at least a third are processed by commercial butchers and meat packers. Based on an average of \$30 per deer, processing costs contribute about \$3.5 million to local economies each year.

A large meat packer in a southeast urban county processes about 2,500

THE EASTERN SPORTS and Outdoors Show, held each year in Harrisburg, is one of the largest of its kind and is a good example of hunter interest. More than 900 exhibitors turn out to show their wares to the quarter-million people who attend. Show organizers say outdoorsmen spend millions on hunting equipment at the show and contract millions more in future hunting trips.



HUNTING IS A VITAL component in the state's economy, contributing probably at least a billion dollars to the commonwealth's businesses and governmental agencies. And as technology and creativity continue to be applied to the sport, the hunting business will likely grow.

deer a year, accounting for about 25 percent (\$130,000) of the shop's gross annual income. When deer season arrives, says the owner, he stops processing pork and beef for about six weeks and works exclusively on venison. The firm offers 11 venison products and makes about 60 tons of venison sweet bologna every year.

In Pennsylvania, there are about 200 full-time and 500 part-time licensed taxidermists who are collectively paid millions each year to mount trophies and tan hides. One taxidermist says about 45 percent of his company's annual \$325,000 income comes from hunters. The firm mounts 500 to 600 game animals each year. Another well-established shop derives 99 percent of its annual \$200,000 income from mounting big game animals. The shop provides full-time employment for the owner and five others.

Pennsylvania issuing agents, primarily sporting goods dealers, receive 75 cents for each license they sell. In 1989—when some license fees were still 50 cents—those fees amounted to \$1.4 million. About \$425,000 in issuing license fees went to county treasurers.

Many hunter expenses are impossible to tabulate. For instance, it's difficult to quantify the amount of money spent on building materials for hunting camps or cabins, gun repairs and modifications, equipment for habitat improvements on private property, and even long-distance phone calls to make hunting arrangements or to call home with news of the "big" day.

Overall, hunting is a big business—a vital element in Pennsylvania's eco-



omic well-being. And, as modern technology and creativity continue to be applied to the sport, the hunting business will undoubtedly become bigger.

But for now, it's a safe bet to presume that hunting funnels at least a billion dollars into Pennsylvania's overall economy each year. These monies support a wide variety of businesses that, in turn, provide employment for many people. Sustaining this industry, it bears repeating, are the license fees and excise taxes that fund the operations and programs of the Pennsylvania Game Commission. Hunting is certainly big business. That all Pennsylvanians are so free to enjoy our state's invaluable wildlife resources is largely due to the contributions being made by sportsmen.

Hunting With Your Eyes Closed

By Charles E. Branthoover

EVERY HUNTER has heard of the poor soul who fell asleep, only to have an 8-point walk past his stand. It happened more than once at our camp over the years, and the brunt of the ribbing each time was focused on a gentleman who in 50 years of hunting never shot a deer. But his method of hunting had a lot to do with it; he'd find a comfortable spot on opening day, settle in, and promptly fall asleep.

As a teenager new to the sport, I often wondered how anyone could fall asleep on a deer stand. But even more puzzling was the commonly held belief that deer would walk past a sleeping hunter. Tracks in the snow often showed deer had walked up to the hunter and then carelessly ambled away.

Many Hours

I've spent many hours in the woods and fields over the years, often "hunting" with nothing more than a walking stick, studying deer and other wildlife. On one particular trek I happened upon three deer standing under a low hemlock branch. The deer obviously had watched my approach for quite a while, yet for some reason decided to stay put rather than flee. What first caught my attention to them was an almost imperceptible movement out of the corner of my eye. I froze and slowly glanced to the side.

I could discern the outline of two of the three deer without looking directly at them; they were only about 35 feet away. Curiosity got the best of me and I turned my head to look directly at the lead doe. As soon as I made direct eye contact with her, she jumped into high gear, with the other two deer close behind.

I had often read stories of deer allow-

ing people to walk past, and then sneaking away behind them. But I couldn't comprehend three deer permitting me to stop in front of them without bolting.

The more I mulled over the event, the more I realized the deer didn't run off until I looked at them. I remembered a time I picked someone out of a crowd who was staring at me, and I wondered how you could tell that a person was looking into your eyes and not at a pimple in the middle of your forehead. There is obviously some sort of recognition factor. I don't profess to know what that "lock on" is, but it's there.

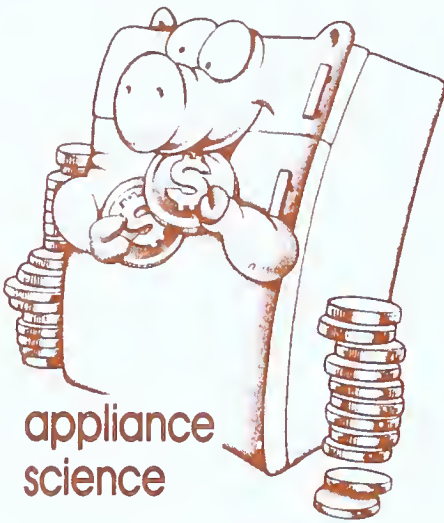
I thought it was possible this had something to do with the flight of the doe when I looked directly at her. It would at least partly explain the sleeping hunter situation, too, because his eyes are closed when deer ease past him.

That fall I had a perfect opportunity to prove, or disprove, my theory. I was unable to go upstate for deer season, so I hunted an area of the southwest that had produced a few nice buck. A 2-inch snowfall made tracking easy, and early in the morning I stumbled onto fresh deer tracks that led into a thick stand of briars and undergrowth. The tangle was impassable, so I circled it to see if the deer had come out the other side. They had not, and I decided to pick a likely trail and wait.

I found a trail and followed it downhill for about a hundred yards. A less frequently used trail forked to the left, and I walked about 30 yards along it, selected a dead tree, and made myself comfortable. From this point I could watch the main trail and wait for the 10-point in the herd I was sure was coming.



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After an hour passed I was about ready to admit the deer had bedded in the slashings or had chosen another exit. Suddenly they were on the trail, moving out of the tangle.

Nearly Panicked

Although I didn't expect it, they chose the lesser trail on which I was sitting. At first I almost panicked because I was positive an old buck was bringing up the rear. And, of course, the lead doe would probably step on my boot when she went by.

Then quickly it flashed through my mind: "Pretend you're asleep." So I closed my eyes nearly tight, allowing myself only a narrow slit through which to peer.

It seems hard to believe, but the deer, seven in all, filed past me one at a time, and five of them reached out to sniff my knee as they passed. All were extremely nervous and I have no doubt they identified me as more than a stump, but they didn't panic.

I was convinced that keeping my eyes closed was the deciding factor, and over the next few years I experimented with my new-found wisdom every chance I got, in every possible situation.

In the late '60s I moved my family to northern Pennsylvania to be in the "big woods." Our house, although only three miles from a town of 12,000, was very isolated. It didn't take long for us to tame the wildlife of the surrounding woods. Within a summer, we had chipmunks, red squirrels and chickadees literally eating from our hands. I was able to go out on our deck, sit in a lawn chair with sunflower seeds or a piece of bread in my hand, and call my "friends" by clucking my tongue. The method I used to overcome their fear was to sit with my eyes closed until they grew accustomed to my presence.

I'm sure that was the key ingredient in taming them because in the beginning they would immediately scurry for cover if I opened my eyes to look at them.

When my oldest son reached hunting age, I spent quite a few hours in the woods with him during the summer and fall. One memorable incident will live forever in his mind. We were walking slowly through the area I usually hunt when we spotted a doe and her fawn angling toward us. I whispered for him to freeze and see how near she would come. My son was already familiar with the closed eyes routine, but I reminded him anyway. The doe and fawn walked so close that he could've touched them.

Although the doe kept a watchful eye on him, she continued walking until she and her fawn were both out of sight. My son still gets a twinkle in his eyes when he remembers, and he's now 25.

Once, in archery season, I had a

I EXPERIMENTED with the closed-eyes technique as often as I could in a number of situations over the years. On one occasion I allowed a spike buck to walk past my stand so close I could have touched it with my rifle.

young buck catch me off guard as I stepped to the top edge of a steep hill. Although I was caught standing on one leg, and very unsteady, I kept my eyes closed to a slit, and the buck walked to me and sniffed the tip of my arrow.

On another occasion I allowed a spike buck to walk past my stand so close I could have touched it with my rifle.

During a squirrel hunt, a big-racked buck walked to within 20 feet or so and stood looking at me for some time. When I finally opened my eyes, he could've outrun a bullet as he left the scene.

I have extolled the virtues of hunting "without your eyes" to countless fellow hunters over the years. Most look at me as if they're wondering what type of glue I've been sniffing. But in the last 18 years I've gone deerless only three times.

My closed eyes method brought me the largest buck I have downed to date. I had just taken a seat on my favorite stand and got settled when two doe approached my stand on the run. Both stopped about 40 to 50 yards away and stared at me. I kept my eyes closed, and after several moments they continued walking up the trail. A few short minutes later, a beautiful 8-point walked up the same trail, and I dropped him in his tracks. I'm convinced that had I spooked the two doe by looking at them I never would have seen the buck.

When caught off guard by a buck, hunters usually react by trying to get off



a quick shot before the animal bolts. That tactic often results in sportsmen coming home empty-handed. Instead, close your eyes to slits and wait him out. Most often a deer will sense no danger and continue on its way. That gives the hunter time to select a good shot.

The technique has provided many memorable moments over the years with nongame as well. The excitement of having a chickadee land on your open hand to take a sunflower seed is beyond description.

For safety's sake, it's imperative to remain alert to your surroundings when hunting. There is no need to close your eyes until the target is close enough to see it. And remember to open your eyes when you shoot.

If you want to add a new weapon to your arsenal of ploys designed to fool the wily whitetail, the eyes have it.

Hunter-Ed Class for Hearing Impaired Held

The West Caln Sportsmen's Club in Chester County will present a Hunter-Trapper Education Course for the severely hearing impaired August 24. The specially adapted class will be conducted through the use of interpretive signing, open caption video and graphic charts; students must be 11 years of age or older. For more information, contact Harold H. King, 29 Stayman St. — RD #2, West Chester, PA 19382.



WE SAW what appeared to be a drag mark in the fresh snow, one that looked like a deer drag — complete with fresh blood. Dick took the back-trail of the drag while I checked to see exactly where it went. The evidence indicated someone had very recently dragged a deer to the road and loaded it into a vehicle.

The Thrill of the Hunt

By Steve Kleiner
WCO, Blair County

IN 1978 I received my first wildlife conservation officer assignment; I was sent to western Greene County. It was there I met Dick Belding, a Commission land management officer. Dick and I soon became good friends.

Dick was and is an enthusiastic outdoorsman who enjoys all aspects of outdoor life, not the least of which is grouse hunting. Dick hunts grouse till he drops, and more than a few notable sportsmen have taken advantage of Dick's reputation as a fine guide.

As a WCO my interest in hunting game became supplanted by another hunting challenge: hunting outlaws and poachers. So, in a way, Dick and I complemented each other.

Every once in a while Dick would call me up and say, "How about taking a

break from being a game warden and let's go scout out a new hotspot I heard about." Sometimes I'd decline, deferring to patrol obligations. But when I did go, the hunt was always enjoyable, whether we got game or not.

Other times I'd give Dick a call and invite him to go patrolling with me. While land management officers' duties are much different than those of a WCO, they have full wildlife law enforcement powers. More often than not, Dick would say okay and off we'd go, hunting for poachers.

One particular Saturday during the late grouse season I got a call from Dick to go hunt some birds in a freshly fallen snow that blanketed the countryside. Greene County is in a fairly warm part of the state, so snow that accumulates

and stays is something to take advantage of.

I'd already made plans to check out some beaver dams, and at first I declined the offer. But Dick was not to be denied. He gave me his finest sales pitch, promising he'd dog the thickets and grape tangles and all I had to do was nose around in the open woods and shoot any grouse that came my way. It was a hard deal to turn down; I agreed and soon we were on our way.

As Dick drove his Jeep to our hunting spot, I couldn't resist the opportunity to jab him a little, suggesting that we pack in the shotguns, put on our uniforms and patrol the district for the day. When Dick suddenly jammed on the brakes, sending the Jeep into a sliding spin, I thought he was just kidding around.

"Look," he said, pointing to a hillside we had just driven by. There in the fresh snow appeared to be a drag mark, one that looked like a deer drag—complete with fresh blood. All the deer seasons had long since ended.

We hopped out of the Jeep, Dick taking the back-trail of the drag while I checked to see exactly where it went. After a while Dick came bounding down the hillside with news that he found where a deer had been killed, probably with a rifle. In the meantime I had followed the drag down to the very road we were on. The evidence in the snow was obvious. Someone had very recently dragged a deer to the road and loaded it into a vehicle.

It had been several hours since the snow quit falling and the township truck had already cleared most of it. But the plow left an inch or two, and we were able to see several sets of tire tracks. Obviously, our tracks were the freshest, but the others were relatively new, too. The tracks we were interested in, those crossing directly over the deer loading area, had a unique feature—tire chain marks. They led in the direction from which we had just come.

"Let's go!" Dick said with enthusiasm. We jumped in the Jeep, turned around and proceeded to follow the



snow chain imprints down the back country road.

While Dick drove slowly along, I leaned out the window to keep an eye on the trail. It was tedious, but fairly easy going. When we came to an intersection we paused just long enough to determine which way the trail went.

Needless to say, Dick and I were pretty excited at this point. We had no idea what our chances of catching up were, and we felt simultaneously anxious and hopeful.

Things were going along nicely when I heard Dick say, "Oh, no." Our road had intersected with a more frequently traveled blacktop road. It was not only plowed but salted as well. Our trail disappeared into the slush.

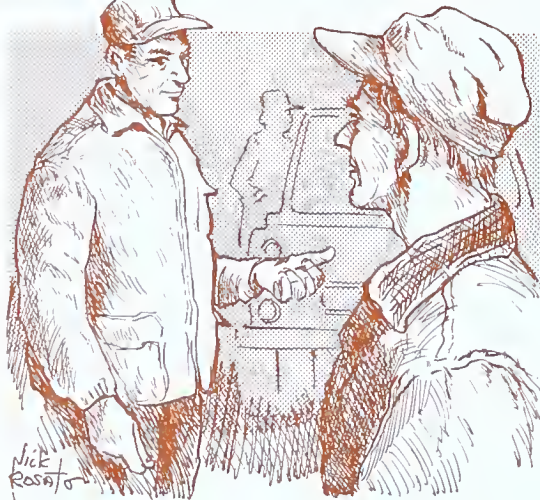
We were despondent. For the past several miles we had carefully and successfully followed the snow chain trail—and now this.

Looking at the point we lost the trail, we could see it took a right turn onto the slush-covered blacktop. We decided to head that way and be on the lookout for a vehicle with snow chains, or perhaps a turn-off onto another snowy road.

Luck was with us. A half-mile up the blacktop was another side road. Our snow chain trail reappeared, heading deeper into the countryside.

By now, almost an hour had elapsed since we took up the trail. We worried about encountering another salted, slushy road and found ourselves growing more pessimistic with each passing minute.

Suddenly we sighted a pickup with a cap on the back. It was pulled slightly



YOU CAN IMAGINE we were pretty interested in what was in the back of the pickup. When the driver opened the tailgate, out flopped a big doe. That part of the case was pretty simple, but what followed was a bit more complicated.

pickup. I asked the driver if he'd open the truck for us. "Yep," he said, and when he opened the tailgate a big doe flopped out. It was that simple.

What was to follow was not as simple. In addition to the deer we found a freshly killed grouse, and neither man had a valid hunting license. To top it off, one of the men was a nonresident, living just over the West Virginia line.

With no other option left to us, we placed the men under arrest and took them to the district justice in Waynesburg. There I filed charges for the multiple violations. The men pled guilty on the spot and received stiff fines.

Later that afternoon, as we headed home, Dick stopped at a local gas station to top off the tank. The attendant, who was a friendly and observant sort of guy, took note of our hunting clothes and equipment.

"I see you boys were out after 'em today. Have a good hunt?" he asked.

Grinning, Dick and I looked at each other. "Yes," we responded, "I guess you can say we had a good hunt." And that it was.

off the road. Near the truck, in the bushes, was a man doing what one does when nature calls. We took our time approaching, not wanting to embarrass the guy. But our tension was mounting. Was this the right vehicle? A quick look at the snow chain trail leading to the truck confirmed that it indeed was.

But now what? Dick and I were both out of uniform, dressed for grouse hunting not law enforcement. Fortunately, I had my badge and identification in my hip pocket. I showed them to the fellow who was now coming out of the bushes. Dick approached the cab and found another man behind the wheel. He had the second man come around back.

You can imagine we were pretty interested in what was in the back of the

Upcoming Attractions at Middle Creek and Pymatuning

Upcoming lectures at Middle Creek begin at 7:30 p.m. and include "An Artist's View of Nature" by wildlife artist and regular GAME NEWS contributor Bob Sopchick, July 17-18; and "Bobcat Natural History and Research" by PGC Wildlife Biologist Jack Giles, August 7-8. August marks the return of the annual Middle Creek Wildlife Art Show. Admission is free, and the scheduled show times are August 9, noon to 8 p.m.; August 10, 9 a.m. to 8 p.m.; and August 11, 9 a.m. to 5 p.m.

Pymatuning lectures include "The Backyard Series," a slide show of birds and plants, by retired U.S. Fish & Wildlife Service agent Ed Baker, July 13, 2 p.m.; and "Bats" by PGC Wildlife Technician Cal Butchkowski, July 20, 8:30 p.m. Pymatuning is also holding a photo contest, which will include color and black and white nature photography. The deadline for submissions is July 12, and the judging will be held July 21. There is a \$5 registration fee for entries. For contest details, call the Pymatuning visitors center at (814) 683-5545.

Lending a Helping Hand

By Dan Brauning

PGC Biologist

THE BALD EAGLES, circling high over Pennsylvania's Grand Canyon, watched closely as PGC wildlife technician Cal Butchkowski and his assistant Lisa Williams carefully climbed their nest tree. The climbers were ascending the tall white pine in an attempt to rebuild the pair's nest, which had fallen during a snow storm several months earlier.

Fortunately, no young eaglets were in the nest at the time. Our concern was that without their nest in place, the pair may leave the area or refrain from nesting this year. Our mission was to place a circular plywood board 80 feet up in the crotch of the tree, to serve as a base precisely where the previous nest had been. Following Cal and Lisa's strenuous climb, the board was hoisted up and secured to the tree. Debris from the old nest was placed on the board to serve as the basis for what we hoped to be a new nest.

A magnificent feature in this pristine country, the pair of eagles moved into northcentral Pennsylvania in 1988, and has stayed along Pine Creek the year-round, or at least as long as there's open water. The birds had been using this particular tree since their arrival, and have produced one eaglet from it every year. The one produced in 1989, however, was found dead at the base of the tree.

Adding even more significance to the presence of the endangered birds, the tag on the female's wing identified her as a "hacked" bird, one released into the wild several years ago as part of a recovery program being carried out in

the eastern United States. With luck, the birds are likely to continue nesting in this area for the rest of their lives.

With four nesting pairs on the Susquehanna River drainage and two new pairs in western counties in recent years, the Game Commission is rightly calling our Bald Eagle Recovery Project a great success. Now, the eagle program is moving into a new phase: management of nesting birds. Rebuilding the Pine Creek nest site is one such activity. Encircling eagle nest trees in Lancaster and York counties with predator guards has also been done. Careful observation of all nesting birds is another important element in ensuring the continued nesting success of these rare birds.

There are better chances of seeing this splendid bird now than at any other time in more than 50 years. The Game Commission will continue to work to assure that future generations can enjoy the thrill of seeing our national symbol soaring in the skies above Pennsylvania.

Just at press time we learned that although the eagles didn't return to their refurbished nest, they built a new nest only about 100 yards away and had begun incubating by early April. This important observation adds even more evidence to the hypothesis that bald eagles are less tolerant of human disturbances than most other birds.



FIELD NOTES



Sure Beats Mice

LYCOMING COUNTY—While signing up farmers in our deer damage program, Deputy Mike Lander and I pulled into a barnyard. A cat jumped onto our loaded deer rack. The farmer wasn't in the barn, so we drove to his house. After talking to him for a while, we got into our vehicle and prepared to leave. As I started to pull away, I asked Mike to check the rack. Sure enough, the cat was still there, chewing on a deer. After much prying and prodding we managed to dislodge the determined feline. —WCO Dan Marks, Montoursville.



Water Sports

CHESTER COUNTY—Early spring turned out to be a wet one for me. First, water poured over top of my waders as I tore out a beaver dam that was flooding a farmer's field. Next, while investigating river otter sightings on a local stream, my canoe got caught in some rocks and began taking on water; I ended up standing in five feet of 40-degree water. Then, trying to rescue an injured snow goose on Octoraro Lake, I decided to just wade right in and retrieve it. A WCO takes on many personas through the year, but I never knew that one of them was a fish. —WCO William C. Ragosta, Nottingham.

Blowing Your Own Horn

BRADFORD COUNTY—The horn of my state vehicle recently took to blowing by itself, usually when rounding corners or slamming the door. One local man used to wave at me when I drove by—until I arrested him last fall. Since then he hadn't waved, but one day I came around a corner and he was coming the other way; the horn blew and he waved. He's been waving ever since. But the real kicker came when WCO Rick Larnerd and I were trapping turkeys. We'd been in the blind for several hours when my vehicle decided to sound off. I left to disconnect the horn, but as I returned the turkeys were coming into the bait and I scared them. Rick went back the next day and trapped the birds, so now I guess I'll have to listen to that "green rookie" blow his horn for a while. —WCO William A. Bower, Troy.

Welcome Home, Troop

SCHUYLKILL COUNTY—A hardy "thank you" to everyone who helped keep my district operating smoothly during my absence. It was a great relief to come back from Operation Desert Storm and find everything in such good order. Thanks especially to all the hard-working deputies, and to WCO John Denchak for his efforts in keeping the alligators at bay. —WCO Stephen S. Hower, Tremont.

Be Understanding

If WCO George Wilcox tries to tell you he recently observed a large, pink rabbit in Bloomsburg, just nod your head and give a knowing smile. You have to realize that all the wildlife surveys we are required to do have finally gotten to him. —LMO Keith P. Sanford, Bloomsburg.

Are You Sure?

COLUMBIA COUNTY—While driving through Bloomsburg in late March I spotted a rabbit ahead of me on the sidewalk. No big deal, I thought. But as I got closer I noticed it was not acting normally. It was hopping on its hind legs, and when I stopped at an intersection it turned toward me and waved. It was then I realized this was truly an exceptional rabbit: It was six feet tall, had pink fur, huge ears and was carrying a basket. LMO Keith Sanford was in the vehicle in front of me, and he saw the Easter Bunny, too. Right, Keith? . . . Keith?—WCO George A. Wilcox, Millville.

Tragic Journey

LACKAWANNA COUNTY—In the October 1990 GAME NEWS, WCO Dan Marks wrote about a bear that had smashed up a car dealership in Muncy. Dan relocated the bear in a remote area, saying it would have to travel a long way before shopping for a vehicle again. It did. And the newer models apparently were too expensive, for this time it chose an old Chevy pickup. Unfortunately, the bruin didn't wait for the truck to stop before taking a better look and was killed instantly in the collision. According to the records, the bear traveled at least 67 air miles from the release site before being killed in Lackawanna State Park.—WCO Timothy Conway, Dunmore.

Desert Roadkills

MERCER COUNTY—Deputy Irven Buttray, a member of the 298th Transportation Company, USAR, was serving in the Middle East as part of Desert Storm. In a letter written to a fellow deputy during the ground offensive, Irv wrote that camels were worse than deer—they were everywhere, and they were often hit on roads. He wrote he was sure glad he wasn't responsible for picking up all the roadkills over there.—WCO Donald Chaybin, Greenville.



Unfazed

UNION COUNTY—John Martin, a Bureau of Forestry employee who lives in the western part of the county, says bears are common visitors at his residence. In one instance, a large bruin was nosing around the house, and John's terrier was outside. The little dog immediately attacked the bear, biting into its flank. The bear paid the animal no attention. Then the dog bit fast to the bear's cheek and hung on. John thought the terrier was a goner, but the bruin continued to plod along, the dog hanging from its face. Eventually the terrier let go and the bear walked away.—WCO Bernie Schmader, Millmont.

A Hearty Thanks

YORK COUNTY—I want to thank the conscientious individual who called our regional office's 800 number to report a violation. A 4-wheel-drive vehicle had driven onto game lands, and the caller said the truck was still there; the driver and his friends were more than a little surprised when I pulled up—they were in the process of digging out the vehicle. The person who reported the incident had taken the time to get a license number and had even taken photos, which would have made my job much easier had the vehicle been gone when I got there. Thanks again for the help; we can't do the job without the help of sportsmen like you.—WCO G.C. Houghton, Emigsville.

Happy Ending

Enroute to Neifferts Dam on SGL 227 to check for illegal fishing I saw a turkey vulture drying its outstretched wings on a power line. At the dam, three great blue herons took flight just as a kingfisher hit the water in pursuit of a minnow. I saw eight male wood ducks and four hens, and the group was joined by a pair of mallards. A single beaver carved a "V" on the water's surface as it headed for its hut. I didn't find any lawbreakers, and it was a pleasant way to end the day.—LMO Stephen L. Opet, Tamaqua.



In Search Of

LANCASTER COUNTY—Last March Deputy Jerry Brandt saw a river otter scampering along Chickies Creek, north of Manheim Borough. Jerry did a double-take as it crossed the roadway directly in front of him. Far from the species' normal range, possibly the otter was looking for a mate.—WCO Dennis L. Neideigh, Salunga.

Not Exactly Welcome

LUZERNE COUNTY—Deputy Ken Royer and I were serving an arrest warrant on an individual who'd failed to respond to a citation. When we approached his front door I noticed a doormat with an inscription I thought fairly appropriate for the situation. It read, "Not you again."—WCO Donald R. Burchell, Dallas.

No, It's Okay

BUTLER COUNTY—Bob Butz and his friend Frank Tracy, who've made hundreds of bird nesting boxes and given them to us for free, decided they would like to help us trap and relocate nuisance bears. They didn't have any plans for the live traps, however, so they called the regional office and talked to one of our busy dispatchers—who didn't know them. When Bob said he wanted to know how to make a bear trap, the dispatcher exclaimed that it was illegal to trap bears in this state. It took Bob a couple minutes to explain the situation and calm the dispatcher.—WCO Dale E. Hockenberry, East Butler.

Be Sure, Be Safe

CLARION COUNTY—While preparing material for a hunter safety presentation at a wild turkey seminar, I was shocked to read the ratio of turkey hunting accidents to the number of turkey hunters. Soldiers in Operation Desert Storm, it seems, had a better chance of coming home unharmed than turkey hunters, and personnel there had to identify friend or foe—not just human or turkey. Regulations will help, but only hunters can stop accidents. Come on, sportsmen, make sure of your targets.—WCO David E. Beinhaus, Knox.

Scouts Represent Hope

ADAMS COUNTY—Each year two Cub Scouts spend half a day with me as part of their Civics Day activities, and this year I had the pleasure of hosting Adam Cole and Ryan Paull. Also, I sponsored Eagle Scout Chad Kerchner at the local council's annual Eagle Scout Career Dinner. Chad is interested in pursuing a career in fish and wildlife management. I always find my association with the Scouts to be very rewarding—they seem to be dedicated to the environment. When I see the leadership traits displayed by these Scouts, I'm encouraged that our conservation efforts are really paying off.—WCO L.D. Haynes, Gettysburg.



Easy Prey

SCHUYLKILL COUNTY—When a bear approached the yard of a local resident, the rabbits sitting there paid no attention. The bear charged and completely surprised the blue and yellow bunnies. After deflating and shredding the two lawn ornaments, the bear apparently decided he didn't like the taste of plastic. And perhaps now he knows why they didn't run.—WCO John Denchak, Gordon.

Just One More Day?

McKEAN COUNTY—As the last of the deer seasons closed on January 26, I was checking a parking lot at the end of the day. There was only one car left, and as the lone hunter came out of the woods, his first words to me were, "Are they going to extend the season?" It seems that no matter how many seasons we have or how long they are, some people will still want more time.—WCO James E. Rankin, Port Allegany.

Dedicated

SUSQUEHANNA COUNTY—I recently came up with my own definition of dedication, as typified by the actions of one of my deputies. Deputy Bruce Carey, Heart Lake, assisted in the search of a home for parts of an illegally killed deer while he was fighting a kidney stone attack.—WCO Charles J. Arcovitch, Kingsley.

Another Good Use

WASHINGTON COUNTY—While manning the agency booth at the Allegheny Sports Show, we were next to an Alaskan outfitter. I had many opportunities to talk with owners Donna and Paul Claus, and my curiosity was aroused when Donna wanted to buy one of our fluorescent orange alert bands. I couldn't figure out why someone who lives 100 miles from the nearest roadway would be worried about becoming involved in a mistake for game accident. It turns out they wanted to wrap the bands around the supplies air-dropped to hunters in the field so they would be easier to find. I'm looking forward to a complete report on the performance of this versatile product.—WCO R. Matthew Hough, Washington.



No More Doubts

PHILADELPHIA COUNTY—Neighboring officer John Morack of Montgomery County called to report a coyote running along Route 422 near Valley Forge National Park. I thought he was seeing things, so I radioed back that three bears had just crossed the road in front of me. Soon after, though, I&E Supervisor Dick Anderson and I had just pulled off the turnpike onto Route 309 when we saw an injured coyote along the road—right outside the Philadelphia city limits. I'll never doubt WCO Morack again.—WCO Richard J. Shire, Philadelphia.

Well-Earned Laurels

CLEARFIELD COUNTY—I want to congratulate Pennsylvania Wildlife Habitat Unlimited for earning the prestigious Working Together for Wildlife award. The club has constructed more than 600 nesting boxes, planted 4,000 trees, participated in our Planting for Wildlife program for four years, and conducted a number of other habitat improvement projects. The group has an active educational program, involving Boy and Girl Scout troops and school systems, and it provides funds to state and local conservation organizations. I'm pleased to have these people working for wildlife in the greater Du-Bois area, and I want to thank them for their efforts.—WCO Colleen M. Shannon, Luthersburg.

On the Rise

CAMERON COUNTY—Jessica Strawbridge, Manchester, recently wrote me about seeing two coyotes in the vicinity of First Fork during deer season. Similar reports, along with an



increased harvest of these furbearers by sportsmen, leads me to believe the coyote population is rising. As the number of coyotes increases, I've noticed a decrease of reported sightings of wild dogs. It appears the coyote is better at adapting to its ecological niche than the dog.—WCO Joe Carlos, Driftwood.

Join Up

A lot of people ask me, "What can I do for wildlife?" After many years as a land manager, perhaps the best advice I can give is to join an organization devoted to land conservation, such as the Western Pennsylvania Conservancy, or one dedicated to the perpetuation of wildlife, such as the Ruffed Grouse Society. These groups spend large amounts of money on habitat acquisition and enhancement, and they are constantly challenging wildlife professionals to come up with better ideas. Support from private conservation organizations has grown dramatically in recent years, allowing us to accomplish far more than we ever dreamed imaginable a short time ago.—LMO R.B. Belding, Waynesburg.

Champion Mousers

MIFFLIN COUNTY—I responded to a call from a farmer who wanted to have a barn owl nest removed from his silo. I was hoping to convey to him the value of barn owls as a means of vermin control. He was already well aware of their efficiency. "They're better than any 10 cats," he said. With the help of Huntingdon County WCO Rob Criswell, we were able to erect a nesting box in the silo where it would not interfere with the farmer's operations. We relocated the eggs to the box, and the owls accepted their new location.—WCO T.A. Marks, Milroy.

Namesake

VENANGO COUNTY—We recently tagged a bear that had three cubs. She had dened under a deadfall in a clear-cut. I was surprised that she hardly flinched when we drugged her—she was quickly handled and put back in the den. The cubs were only a couple months old and had already grown to between six and seven pounds. The largest, a male, seemed quite disturbed by the operation and squealed the entire time we had the cubs outside the den. Deputy Bob Gilford promptly named him "Lenny." I wonder why?—WCO Leonard C. Hribar, Seneca.



THE 1991 antlerless deer license allocation of 847,200 is designed to reduce the deer herd by 10 percent. Depending upon weather and other variables, the antlerless deer harvest should be between 230,000 and 280,000 animals. For the past three seasons the deer herd has been held in check, with harvests equaling annual fawn production.

847,200 "Doe" Licenses

THE PENNSYLVANIA Game Commission has again approved a record number of antlerless deer licenses to help reduce the statewide deer herd, projected to be about 1.1 million animals by the time archers enter the woods this October. The allocation marks the seventh consecutive year circumstances have dictated a license increase. The record 847,200 allocation is designed to reduce the herd by 10 percent.

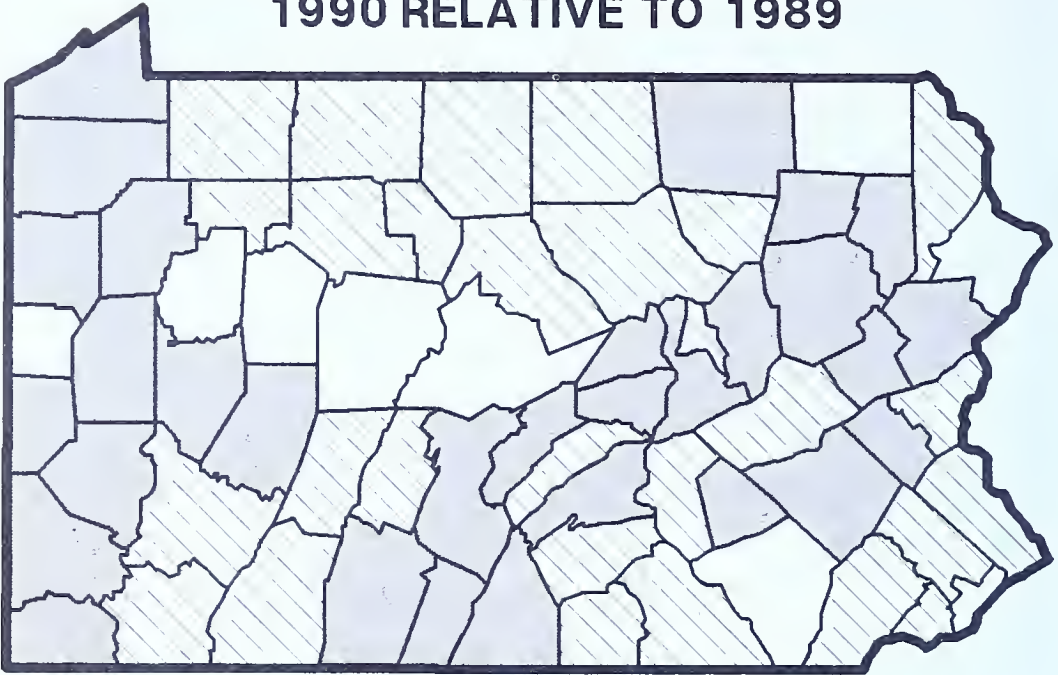
According to biologist Bill Palmer, the allocation should reduce the deer herd in 62 counties and stabilize it in four others. "Even with last year's record allocation and harvest, deer still increased in 30 counties," says Palmer. "And despite reductions in 28 other units, on a statewide basis, the over-

winter herd remained essentially the same. We didn't make any progress toward reducing the statewide herd; we simply stopped it from growing."

While the herd had grown for more than a decade, for the past three seasons it has been held in check with har-



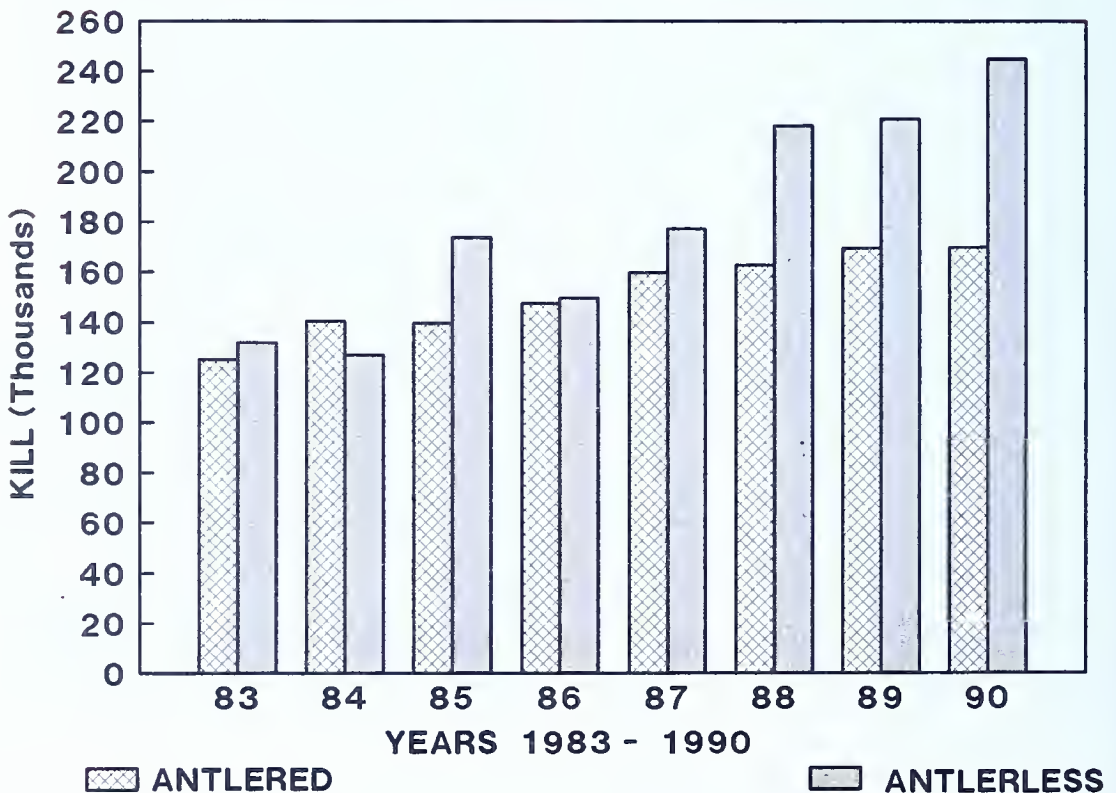
OVERWINTER DEER POPULATIONS 1990 RELATIVE TO 1989



INCREASE **DECREASE** **NO CHANGE**

COUNTY DEER POPULATION changes from 1989 to 1990 are illustrated above. Harvests trends below, particularly for antlered deer, indicate how the deer population has become stabilized over the past three years.

ANTLERED HARVEST: ANTLERLESS HARVEST



vests equaling annual fawn production. If hunters can get better access to the deer this year, the 1991 allocation has the potential to cut the overwintering herd 10 percent. License increases are slated for 35 counties, there are cut-backs in 20 others, and 11 counties get the same allocations. Palmer says, depending upon weather and other variables, the antlerless harvest should range between 230,000 and 280,000.

Some hunters still question the need to reduce the deer herd, believing deer are already too scarce. In response, biologist Bill Shope notes, "It's hard for some people to believe we have over a million deer in Pennsylvania. But, biologically, we couldn't possibly be harvesting 350,000 to 400,000 deer with-

out at least that many. Our deer management program has withstood the tests of time," says Shope. "We have one of the best population estimation systems in the United States. Nobody's saying it's perfect, but it's a proven success, the product of increasingly sophisticated management."

Palmer is quick to point out that this year's allocation is higher than last year's, in part because the state's antlerless deer hunter success rate has slipped. "It's taking more licenses to harvest a deer," he explains. "To combat that factor, we have to offer more licenses to achieve our harvest goals."

The 1991 county allocations, harvest objectives, and desired percentage changes in herd size follow:

<i>County</i>	<i>Licenses</i>	<i>Expected Harvest</i>	<i>Percent Change</i>
Adams	8,750	1,159	- 16%
Allegheny	16,300	1,372	0%
Armstrong	14,800	2,043	0%
Beaver	11,250	1,264	0%
Bedford	17,700	2,709	- 10%
Berks	19,650	3,067	- 10%
Blair	13,700	1,983	- 15%
Bradford	28,900	4,591	- 19%
Bucks	14,750	1,455	- 18%
Butler	16,500	2,097	- 5%
Cambria	14,050	2,351	- 10%
Cameron	4,450	723	- 5%
Carbon	4,050	485	5%
Centre	21,200	3,045	- 10%
Chester	11,700	1,177	- 50%
Clarion	13,050	2,097	- 10%
Clearfield	24,200	3,755	- 10%
Clinton	11,100	1,285	- 5%
Columbia	16,000	2,480	- 15%
Crawford	21,250	3,535	- 10%
Cumberland	7,800	852	- 10%
Dauphin	5,750	853	- 5%
Delaware	1,700	268	- 50%
Elk	13,300	1,865	- 10%
Erie	18,000	2,234	- 12%
Fayette	12,800	1,670	- 5%
Forest	13,050	2,046	- 10%
Franklin	12,950	1,620	- 10%
Fulton	4,500	479	6%
Greene	13,000	2,163	- 14%
Huntingdon	21,300	2,799	- 10%
Indiana	18,850	2,881	- 15%
Jefferson	13,850	2,232	- 10%
Juniata	8,550	1,061	- 10%
Lackawanna	8,550	953	- 10%

Lancaster	6,700	781	- 10%
Lawrence	4,050	464	10%
Lebanon	5,900	667	- 15%
Lehigh	6,000	837	- 18%
Luzerne	16,000	2,247	- 5%
Lycoming	19,800	2,416	- 5%
McKean	14,150	2,418	- 10%
Mercer	11,650	1,774	- 15%
Mifflin	9,150	993	- 5%
Monroe	7,500	749	5%
Montgomery	3,700	383	- 24%
Montour	3,100	330	- 25%
Northampton	6,200	639	- 27%
Northumberland	8,750	1,091	- 10%
Perry	13,350	1,795	- 5%
Philadelphia	500	—	—
Pike	8,350	976	- 5%
Potter	16,950	3,291	- 10%
Schuylkill	17,050	2,728	- 15%
Snyder	6,200	775	- 10%
Somerset	15,350	2,699	- 10%
Sullivan	9,500	1,367	- 10%
Susquehanna	15,500	2,433	- 10%
Tioga	22,600	3,595	- 10%
Union	4,450	629	0%
Venango	17,300	2,783	- 10%
Warren	20,650	3,002	- 5%
Washington	21,600	3,174	- 10%
Wayne	15,000	2,117	- 18%
Westmoreland	16,550	2,454	- 15%
Wyoming	8,400	1,002	- 10%
York	17,950	1,913	- 10%

SEASONS AND BAG LIMITS 1991-92

The Pennsylvania Game Commission, in Harrisburg on April 3, 1991, established the following seasons and bag limits for resident game and furbearers for the 1991-92 hunting license year, which begins July 1.

Open seasons include first and last dates listed, Sundays excepted, for game. Shooting hours are from one-half hour before sunrise until sunset except turkey gobblers (spring season) from one-half hour before sunrise until noon; raccoons, which may be hunted any hour except during the firearms deer seasons when the hours are from sunset to one-half hour before sunrise; and woodchucks, coyotes, opossums, skunks, and weasels, which may not be hunted before noon May 2-May 30. Seasons and shooting hours for migratory birds will be announced later.

Daily Limit	Field Possession Limit	SMALL GAME	DATES OF OPEN SEASONS	
			First Day	Last Day
6	12	Squirrels, Gray, Black, Red and Fox (combined)	Oct. 19	Nov. 30 AND
			Dec. 26	Jan. 25, 1992
2	4	Ruffed Grouse (Statewide)†	Oct. 19	Nov. 30 AND
		(Statewide)	Dec. 26	Jan. 4, 1992
		(In 55 counties)††	Jan. 6	Jan. 25, 1992
4	8	Rabbits, Cottontail	Nov. 2	Nov. 30 AND
			Dec. 26	Jan. 25, 1992

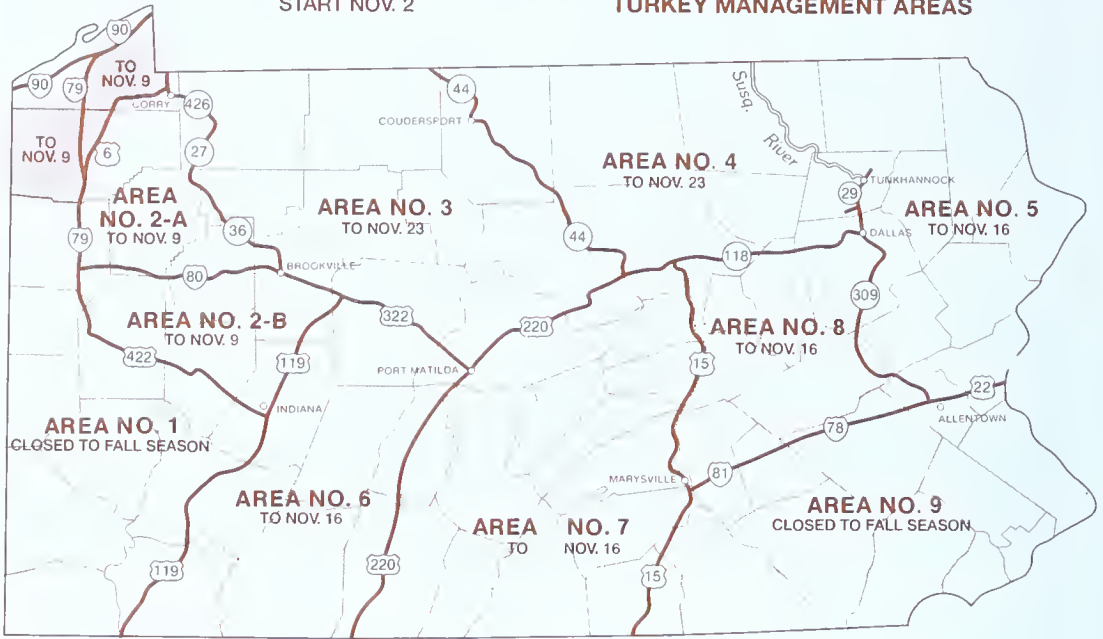


CARL, GREG AND NANCY KULP, Bechtelsville, bagged three fine Berks County bucks near their home last year. Carl connected with an 8-point on the second day of the season, while son Greg and wife Nancy waited until the first Saturday before dropping their trophies, an 8-point and 7-point, respectively.

Daily Limit	Field Possession Limit	SMALL GAME	DATES OF OPEN SEASONS	
			First Day	Last Day
2	4	Ring-Necked Pheasants, males only	Nov. 2	Nov. 30
		(Except in designated area)†††		
		—both sexes in designated area	Dec. 26	Jan. 4, 1992
4	8	Bobwhite Quail (In 54 counties)*	Nov. 2	Nov. 30
	Season Limit			
2	4	Hares (Snowshoe Rabbits) or Varying Hares	Dec. 26	Jan. 1, 1992
Unlimited		Woodchucks (Groundhogs)#—No Sunday Hunting	July 1	June 30, 1992
Unlimited		Crows (Hunting on Fridays, Saturdays, Sundays only)	July 5	Nov. 17 AND Dec. 20 Apr. 5, 1992
BIG GAME				
1	1	Wild Turkey—Management Area No. 1	Closed to Fall Hunting except open Crawford Co. and Erie Co. east of I-79 & south of I-90	
			Nov. 2	Nov. 9
		—Management Area No. 2-A & 2-B	Nov. 2	Nov. 9
		—Management Area No. 3 & 4	Nov. 2	Nov. 23
		—Management Area No. 5, 6, 7 & 8	Nov. 2	Nov. 16
		—Management Area No. 9	Closed to Fall hunting	
		—Spring Gobbler Season	May 2	May 30, 1992
		(Bearded Birds Only, Statewide)		
1	1	Bear—by individual—Statewide	Nov. 25	Nov. 27
1 antlered or 1 antlerless deer during license year		Deer—Archery Season, any deer—Statewide	Oct. 5	Nov. 1 AND Dec. 26 Jan. 11, 1992
Bonus deer with bonus tag		Deer—Antlered, with 2 or more points to an antler or a spike 3 or more inches long—Statewide	Dec. 2	Dec. 14
		Deer—Antlerless, with required antlerless license	Dec. 2	Dec. 21 AND Dec. 26 Jan. 25, 1992
		Special Regulations Area††††		
		Deer—Antlerless—Statewide	Dec. 16	Dec. 18
		Deer—Flintlock Season, any deer—Statewide	Dec. 26	Jan. 11, 1992
		Deer—Antlerless Only, only on designated deer	Dec. 26	Jan. 25, 1992
		damage areas with required antlerless deer license		

ALL FALL TURKEY SEASONS
START NOV. 2

1991 PENNSYLVANIA TURKEY MANAGEMENT AREAS



TURKEY MANAGEMENT ZONES remain unchanged from recent years. Except as indicated by the shaded areas, Management Area 1 and Management Area 9 are closed to fall turkey hunting. Fall turkey season in all other management zones begins on November 2.

FURBEARERS AND COYOTES—HUNTING

Unlimited	Foxes—Red and Gray—Statewide # Sundays included	Oct. 10	Feb. 21, 1992
Unlimited	Skunks, Opossums, Weasels, Coyotes #	July 1	June 30, 1992
Unlimited	Raccoons—Statewide #	Oct. 10	Feb. 21, 1992

TRAPPING

Unlimited	Raccoons, Skunks, Opossums, Foxes, Weasels, Coyotes	Oct. 10	Feb. 21, 1992	
Unlimited	Minks	Nov. 28	Jan. 5, 1992	
Unlimited	Muskrats	Nov. 28	Jan. 5, 1992	
10	10	Beavers—Zones 1, 2, 3 (see 1991-92 Hunting and Trapping Digest) with the following exeception	Dec. 21	Jan. 20, 1992
10	40	Beavers—Bradford, Susquehanna, Wayne Counties	Dec. 21	Jan. 20, 1992
6	6	Beavers—Zones 4, 5, 6	Dec. 21	Jan. 20, 1992

NO OPEN SEASON—All other wildlife species.

NO CLOSED SEASON—European Starlings and English Sparrows.

SPECIAL REGULATIONS

†Grouse hunting prohibited on designated portion of State Game Lands 176, Centre County.

††Grouse hunting permitted Jan. 6-25 in all counties except Berks, Bedford, Butler, Centre, Clarion, Dauphin, Fayette, Huntingdon, Indiana, McKean, Monroe and Susquehanna, where the season is closed.

†††Designated Area for Male and Female Pheasants—East of Ohio and north of Interstate Route 80 to Route 220, north of Route 220 from Interstate Route 80 to Route 118, north of Routes 118 and 415 from Route 220 to Route 309, north and east of Route 309 from Route 118 to Interstate Route 80, and north of Interstate Route 80 from Route

309 to the New Jersey line. No pheasant hunting in Mercer County west of Interstate Route 79 and north of Interstate Route 80.

†††† *Special Regulations Areas*—All of Allegheny, Bucks, Chester, Delaware, Montgomery and Philadelphia counties.

Lawful for deer: Muzzleloading long guns; bow and arrows; manual or autoloading shotguns, 20 gauge or larger, slugs or buckshot only, except, buckshot may not be used in Allegheny County. Buckshot is required in Ridley Creek and Tyler State Parks.

Lawful for Small Game, Hunttable Furbearers and Crows: Manually operated or autoloading shotguns plugged to three-shell capacity in the chamber and magazine combined; shot no larger than BB; and bow and arrow. Manually operated 22 caliber rimfire rifles and handguns are permitted only in Allegheny County.

Lawful for Waterfowl: Manually operated or autoloading shotguns no larger than 10 gauge, plugged to three-shell capacity in the chamber and magazine combined; only nontoxic shot no larger than T (.20 inches); bow and arrow.

Lawful While Trapping: Manually operated 22 caliber rimfire rifles or handguns. (Persons under 12 must be accompanied by an adult.)

- # During the regular antlered and antlerless deer seasons Dec. 2–Dec. 14 and Dec. 16–18, and any extension thereof, it shall be unlawful to hunt any other wild bird or animal (except coyotes if the hunter has a valid, unused deer tag) from one-half hour before sunrise to sunset—migratory waterfowl and game birds on regulated hunting grounds are excepted; hunting during spring turkey season May 2–May 30 for coyotes, opossums, skunks, weasels, groundhogs prohibited before noon. With the exception of foxes, furbearers may not be hunted on Sunday.
- * Bobwhite quail hunting permitted Nov. 2–Nov. 30 in all counties except Adams, Chester, Cumberland, Dauphin, Delaware, Franklin, Fulton, Juniata, Lancaster, Lebanon, Perry, Snyder, and York, where the season is closed.

WCO JOHN MARTIN, York County, was honored with this year's "Outstanding Wildlife Conservation Officer of the Year Award," presented by the Conservation Law Enforcement Chief's Association. John received the award last May at the Northeast Fish and Wildlife Conference in Portland, Maine. Here with John are Southeast Region Director Jim Williams, left, and Executive Director Pete Duncan and Bureau of Law Enforcement Director J. R. Fagan.



Game Commission Publications & Items

Quantity	Books	Price
_____	THE SHOOTER'S CORNER, by Don Lewis	\$ 15.00
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus	\$ 10.00
_____	PENNSYLVANIA BIG GAME RECORDS, 1965-1986	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Doult, et al	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK	\$ 4.00
_____	DUCKS AT A DISTANCE	\$ 1.00
_____	WOODLANDS AND WILDLIFE	\$ 4.00
_____	WOODWORKING FOR WILDLIFE	\$ 3.00

Working Together For Wildlife

_____	1991 ART PRINT "At The Den" (Red Fox)	\$125.00
_____	1990 ART PRINT "Coming Home" (Bald Eagle)	\$125.00
_____	1989 ART PRINT "Last Glance" (White-tailed Deer)	\$125.00
_____	1988 ART PRINT "Snowy Egret"	\$125.00
_____	1987 ART PRINT "Autumn Challenge" (Elk)	\$125.00
_____	1986 ART PRINT "Country Lane Kestrel"	\$125.00
_____	1991 RED FOX PATCH	\$ 3.00
_____	1990 BALD EAGLE PATCH	\$ 3.00
_____	1989 WHITETAIL DEER PATCH	\$ 3.00
_____	1988 SNOWY EGRET PATCH	\$ 3.00
_____	1987 ELK PATCH	\$ 3.00
_____	1986 KESTREL PATCH	\$ 3.00
_____	1985 BOBCAT PATCH	\$ 3.00
_____	1984 BLUEBIRD PATCH	\$ 3.00
_____	1981 FLYING SQUIRREL PATCH	\$ 3.00

Wildlife Management Areas

_____	PYMATUNING WATERFOWL PATCH	\$ 2.00
_____	MIDDLE CREEK PATCH	\$ 2.00

Pennsylvania Bird and Mammal Charts

_____	Set #1 (4 charts) 20" x 30"	\$ 6.00
_____	Set #2 (4 charts) 20" x 30"	\$ 6.00
_____	Set #3 (8 charts) 11" x 14"	\$ 5.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel)	\$ 3.00

Sport Items

_____	Bronze SPORT Tie-Tac/Lapel Pin	\$ 3.50
_____	SPORT Patch	\$ 1.00
_____	SPORT Hat (One Size Fits All)	\$ 4.00
_____	Fluorescent Orange Safety Alert Band	\$ 3.00

Waterfowl Management Stamps (Voluntary)

_____	1991 Waterfowl Management Stamp	\$ 5.50
_____	1990 Waterfowl Management Stamp	\$ 5.50
_____	1989 Waterfowl Management Stamp	\$ 5.50

Mail orders along with remittance (do not send cash) to Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Checks should be made payable to: Pennsylvania Game Commission. U.S. currency only.



HUNTING isn't just about animals, though if you're afield any amount of time you'll see plenty. No matter how many years you hunt, every wildlife encounter will be unique and amazing. Much of what you'll remember won't concern the game you're hunting.

To Each His Own

I RETURNED home the other day to find an interesting message on my phone recorder. "Guess what?" a breathless young voice said. "I passed my hunter-ed course. Missed just one on the test. Can't wait 'til this fall. See ya."

This was news I'd been expecting for some time. The youngster who called was barely able to wait until he was old enough to take his hunter education course. And now he's on the brink of his first hunting season. I won't be in on his once-in-a-lifetime first trip afield, but I know I'll be with him soon after. He's already asking his dad, "When are we going up to the Steiners' to hunt?"

I reset the recorder to erase the tape and take more messages, but I couldn't get my eager young friend out of my mind. His first hunting season, his first day out "for real," carrying a bow or gun instead of a walking stick. I tried to go

back and remember what that was like. But so many years intervened, I found I was guessing and imagining more than remembering, and I gave up. Nothing is ever again like it was when you were 12 years of age.

Instead, I turned to this thought: What was this youngster expecting from the hunt? What did he think hunting was or wasn't about? Looking back across my own seasons, I knew some of

Another View...

by Linda Steiner

your "favorite" uncle is a game hog, shooting more than his limit and bragging about it. Now you must find a way to love him as a relative, though you can no longer think highly of him as a person. Hunting will solidify some friendships for you, and end others.

As a hunter, you will also have to deal with the way others view you. You'll be admired by some, ridiculed by others. You may have to face anti-hunting sentiment directed toward you by misinformed, emotion-driven persons. How you conduct yourself and how you answer will reflect on all hunters. Remember that the facts supporting the sport are on your side. Getting educated about them, as in your hunter-ed course, is vital.

What else is hunting about? Hunting is about making mistakes, and accepting them, like missing easy wing shots or watching the other way while the buck sneaks by. Hunting is about never making mistakes, certain kinds of mistakes, like getting careless pointing a firearm or forgetting to unload it. Hunting is about being successful, and about failing. It's about tempering happiness with humility in the first case and learning to control disappointment and envy in the second. Hunting is about

being skillful, and about admitting how much there is yet to learn.

Hunting is about private moments when you have the woods all to yourself, and can imagine you're the last person alive in a wilderness world. It is about being part of a group, all stopping for a big breakfast on the way, sharing the cover of a hemlock during a rainstorm, laughing in the car on the trip home. You'll discover you cherish the days of solitude, and as fondly recall the good times with the gang.

Hunting is not for kids, but it does strike something forever young in us all, a youthful eagerness, a wanting to know, a desire to try, a need to go to the woods and see what there is to see. Perhaps it appeals to some relic in our nature from when mankind was younger, so that we still find hunting natural and satisfying today. Though I've had 20 years of the sport, I don't know the answer. But I'll gladly volunteer my opinion.

On second thought, it might just be presumptuous of me to try to explain the hunt to my young friend. In the end, whatever he finds hunting to be or not to be is a question he, like so many before him, will just have to settle for himself.

Books in Brief...

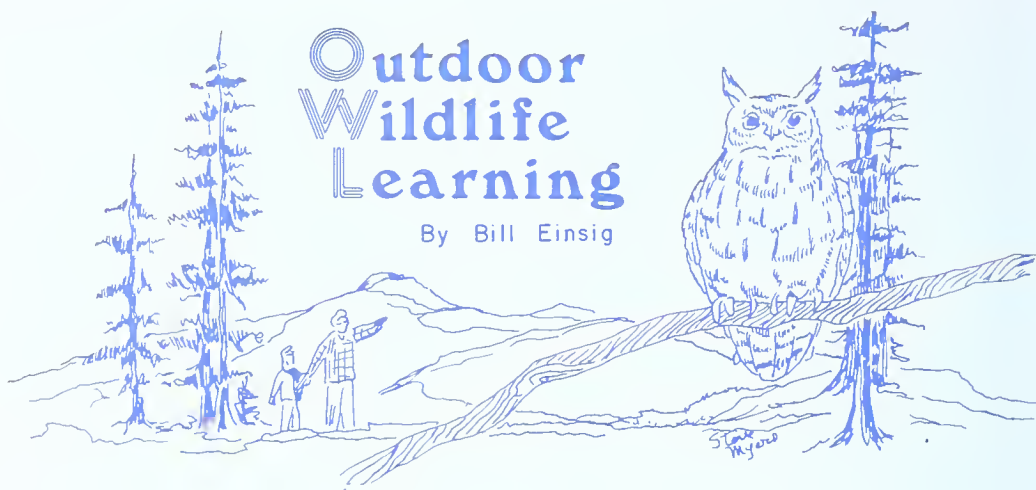
(Order from publisher, not from Game Commission)

Walk With The Eagles: Hunting North American Big Game, by Doug Yajko, Roaring Creek Press, P.O. Box 563, Glenwood Springs, CO 81602, 240 pp., \$33, delivered. Follow the author, a practicing surgeon and active conservationist, as he tracks down musk ox well above the Arctic Circle, completes his "Grand Slam" by dropping a desert sheep in Baja, and methodically collects all 22 of the other huntable big game species in North America. The no frills, straightforward accounts leave a few unanswered questions but, on the other hand, they leave no doubt as to the authenticity of the experiences shared here and the author's passion for big game hunting. It was refreshing to read about such opportunities and know they still exist.

Appalachian Spring, by Marcia Bonta, University of Pittsburgh Press, c/o CCP Services, Box 6525, Ithaca, NY 14850, 198 pp., clothbound, \$19.95; paperback, \$9.95. Add \$2.50 p&h. Marcia is a frequent contributor to GAME NEWS and several other outdoor magazines. In this, her third book, she describes her findings and shares her experiences as she watches the natural world come to life around her mountaintop home in southcentral Pennsylvania. Month by month and day by day, from March through June, she relates in journal form the arrival of migrating birds, the courtship behavior of foxes and squirrels, and much more. This book will certainly be a treasured addition to every naturalist's library.

Outdoor Wildlife Learning

By Bill Einsig



Not Generally Recommended

Dear Mr. Owl,

Is feeding dried corn to deer during the winter months helpful or harmful to them?
J.P., Pittsburgh

Dear J.P.,

Your question is a good one that touches on controversial differences between professional wildlife managers and many hunters. Both groups are certainly concerned about the stewardship of the white-tailed deer, but their approaches grow from radically different perspectives. I'm going to answer your question but, first, you need to understand those two perspectives.

Some years ago, a good friend and I visited a deer yard near Austin in Potter County. It was during the first few days of trout season that we walked to a small stand of conifers behind a row of vacant cabins. Throughout the yard, partially decomposed deer carcasses littered the ground. One animal apparently straggled from the stand of trees, using its last few calories of energy, and fell to die on the front steps of one of the cabins, and another deer was found just outside the back door of another.

We counted more than 60 dead deer in an area of, perhaps, an acre. We didn't tally the sexes or try to determine their ages. We were too moved by this massive loss of life, this terrible waste that, likely, had gone on in other wooded acres in re-

mote valleys across the state throughout the winter.

At the time, I remember an overwhelming sense of guilt and regret that I, or someone, had not found those deer in time to save them. To give them food. To buy corn for them. To help them survive the winter.

Ironically, near a cabin less than a hundred yards away from the yarding area, we found a crib feeder half full of field corn. Either the deer had not found the corn, or they failed to recognize it as something to eat, or some behavioral mechanism we don't yet understand wouldn't permit them to leave the yard and search for food.

For me, that memory encapsulates all the arguments for and against the issue of feeding deer in winter. Our first urge as caring humans is to save animals that are now alive. We are eager to choose the "quick fix" even when short term solutions might have disastrous consequences. Usually, our focus is on the present, the here-and-now, the immediate need.

But professional managers must take a different perspective that spans more than the present. They look toward the future with the knowledge and experience of what has happened in the past. Their goal is to develop a deer herd that can be sustained by the habitat on which it depends. The dead deer I saw that winter lived on habitat that was stretched to the

limit even during the summer. They may have even enjoyed food from the cabin owners all year and that food might have helped to keep their numbers artificially high—much higher than the habitat alone could support. The winter snow simply brought about the last step in a chain reaction that started months earlier.

Let's play with a few numbers. Assume there were 60 deer in that yard and 30 of them were doe. Also assume someone succeeded in feeding the deer and they all survived. Those 30 doe would have possibly had two fawns each. Hunting, natural deaths and accidents would claim some of those lives, but it's probable that the next winter there would have been in excess of a hundred deer trying to survive in a winter habitat that couldn't provide enough food energy for 60. Would you feed them a second winter? Under ideal conditions, a deer herd can double its numbers in one year. Will your commitment do the same? Just how much corn can you afford?

One reaction to this sort of reasoning is to point to the cruelty of allowing animals

to starve to death. No one wants that to happen, but there are two approaches to avoiding it. One is to feed deer as much as they need when they need it. The other is to control herd size within the limits imposed by the habitat. Our heart leads us in one direction, our wisdom leads us in the other.

So, to answer your question directly, feeding deer in the winter, as a general practice, might yield short term benefits to a few deer but long term harm to many. Saving deer one winter by supplemental feeding could mean there will be more deer to feed next winter and, more important, that the larger herd will further reduce the ability of the land to supply enough food.

There are other problems with supplemental feeding, too. Deer that congregate around feeding stations are more prone to pick up and transmit diseases simply because they are close together.

Food may have to be carried right to the deer on a regular basis because deer are reluctant to search for it. If someone regularly tramples a trail to a yard, they may

Fun Games

Back to the Basics

By Connie Mertz

Name the four basic needs of wildlife in the blanks below.

The term that best describes these needs is _____.

Unscramble the following letters to find natural factors that help determine natural wildlife populations.

- 1. D R O E N A T I P _____
- 2. E D I S S A E _____
- 3. H E E W A T R _____
- 4. C I R W O D E N G V O R _____
- 5. T A S E R S I A P _____

Answers on page 64

also unwittingly direct predators to the snowbound deer.

In general, supplemental feeding of deer during winter months is not a recommended practice, although it might be worthwhile in extreme cases where a local deer herd is at risk. Habitat improvement practices, such as tree and shrub planting and browse cutting, are better methods of supplying foods to ensure that deer enter winter in healthy condition and with adequate energy reserves.

Finally, small scale feeding of a few deer at your home or cabin probably does little harm. In normal winters, and good habitat, such feeding can attract deer so you can watch and enjoy them in much the same way that feeding winter birds attracts them to feeding stations. If they become dependent upon your food, however, you then have some responsibility to those few animals to continue feeding through the winter's most severe weather and into spring when snows melt and new food plants begin to grow.

A Note on Roadside Springs

Imagine you're enjoying a Sunday drive in the country with the family. You begin to get thirsty and the kids need a break to stretch their legs. You spot a number of cars pulled to the side of the road and people lined up with water jugs at a roadside spring. Would you stop and drink this water?

At one time or another, most of us have done just that. Many Pennsylvanians depend on spring water for daily use at home or for occasional use at mountain cabins. Others make the effort to carry spring water even though they have municipal water because they prefer the taste or "purity" of untreated water directly from the earth.

Many people, however, don't realize there can be many dangers present in such water. Years ago, I worked for several summers as a sanitarian for the Department of Environmental Resources. Occasionally, I would have to test several popular roadside springs in my area for bacteria that originate in sewage. Usually, the tests showed the springs to be polluted and unsafe to drink. I would post

them with warning signs which would disappear almost as soon as I drove away.

As a result, one of the great mysteries in my life is to understand why someone would pay hundreds of dollars each year for the highest quality water on this earth and then drink untreated water vulnerable to numerous kinds of contamination from sewage and a host of chemicals.

A recent report on the need to monitor roadside springs was recently published by the Joint Legislative Air and Water Pollution Control and Conservation Committee. If you use roadside springs, you should read this report. Ask for a free copy of the *Special Report on the Use and Regulation of Roadside Springs in Pennsylvania* from the Joint Conservation Committee, Box 254, Main Capitol Bldg., Harrisburg, PA 17120.

Attention Teachers!

Recycling programs are sweeping through schools and communities thanks to Act 101. Many teachers have taken advantage of the current interest in solid waste issues and recycling efforts to focus attention on these topics in their own classroom programs but they need good activities and lesson plans that will help them do the job right. Recently, two new booklets have been developed to meet that need.

"Pennsylvania Recycling and Waste Reduction Curriculum Activities" is published by the Pennsylvania Department of Education in versions for elementary and secondary grades. It is full of effective learning activities and useful background information. Copies are free from the Office of Environmental Education, PDE, 333 Market Street, Harrisburg, PA 17126-0333.

"Waste Away: Information and Activities for Investigating Trash Problems and Solutions" is published by the Vermont Institute of Natural Science. It is designed for upper elementary and middle school students, but many of the activities can be easily modified for other grade levels as well. Order from VINS, Woodstock, VT 05091. Cost is \$18.95 plus \$2.50 postage and handling.

THOSE HAZY, lazy days of summer are upon us. Visions of a comfortable hammock bridging two dense trees entice us, while a cool wisp of a breeze and a tall chilled lemonade complete the oasis-like setting in our backyards. Yes, summertime and the living is easy, or so I wish.

As with every passing page of the calendar, July brings a varied work load. Plans are already being made for upcoming hunter education courses, sportsmen's shows and exhibits, and the major hunting seasons are just around the corner. Administrative duties, permittee inspections, ongoing training and educational programs highlight this month's duties. Squeeze in patrols and the agenda is rapidly filled.

Yet, like most people, I need a break, and a vacation is most welcome. Several days to unwind and relax next to the crashing surf or, perhaps, adrift on some secluded northern lake can soothe the most jangled of nerves.

JULY 8—Arriving home after just such a long awaited break, my family begins to unload our car as I unlock the front door. The sun is beginning to set on a perfect summer's eve. Well, almost perfect, until I hear the unmistakable ringing of my office phone.

"Geez! Can't ya' wait until I at least unlock the door," I mutter to myself.

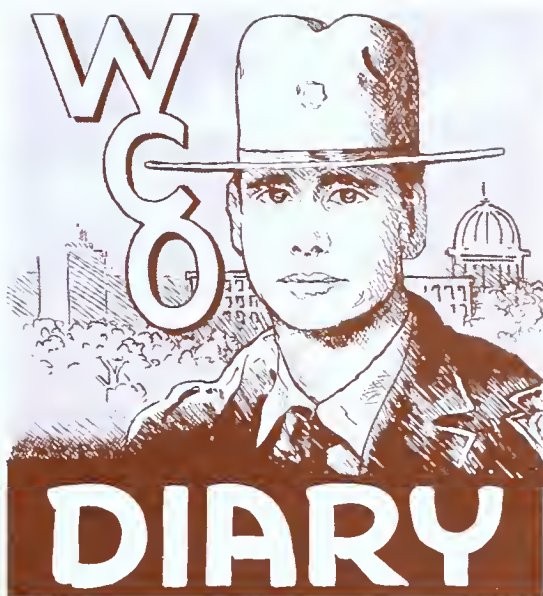
The radio dispatcher's voice is all too familiar. "Hi. How was your vacation?" he asked.

"Great. What's up?"

"Two bears are creating problems in a Linglestown neighborhood. The Lower Paxton police are at the scene and they're requesting your assistance."

Home, sweet home, I think as I jump into my uniform, grab needed gear, and dash out the door. My wife chuckles when I inform her where I'm going and why. WCOs' families are accustomed to such impositions and impromptu interruptions at any time of day or night the year around. With beach balls and sand toys in hand, the kids wave goodbye as Dad disappears in a cloud of dust.

Within minutes I arrive to find the two furry trouble-makers ransacking the neighborhood. Garbage cans and rubbish are strewn about the backyard as the larger of the two bruins stands defiantly guarding the newfound cache. Dauphin County is hardly prime bear country,



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

so situations such as this are rare here. I'm convinced these are the two culprits that have been invading the Harrisburg suburbs for the past month. The large number of well traveled highways in the area gives me a concern for the bears' well-being, so I decide this may be my best chance to tranquilize and remove the bruins from this populous district.

These particular bears are unusually fearless as I, with tranquilizer gun in hand, approach to within five yards. Typically, at the gun's mild report, the bears hightail it into the wooded area surrounding the development.

The drug takes effect, and we quickly locate the darted bear lying limp in a thicket of maple saplings. He's a small male with prominent ear tags identifying him as a previous and, perhaps, habitual troublemaker.

Deputies Bob Landon and Frank Kolaric, who had been assisting at the scene, pick up the culvert trap stored nearby at SGL 211. We use these devices to not only capture bears, but also to transport them. Soon my patrol vehicle is humming northward, bear in tow, toward the big woods of central Pennsylvania.

WCO Tim Marks, Mifflin County, grins as I arrive at the State Police barracks in Newport. I had arranged a rendezvous with Tim, and now he will continue northward and release the bear somewhere near the Centre/Mifflin border.

IT'S THE LAW



Question

Is it permissible to use portable tree stands on State Game Lands?

Answer

Yes, as long as the stand does no damage to the tree. While minor scuffing of the bark would not be considered damage, any cutting or piercing of the tree's cambium layer would be damaging and, therefore, a violation of the Game and Wildlife Code.

Problem bears are normally transported to remote areas far from their place of capture. With those precautions and a bit of good luck, we hope such nuisance bears reform from their delinquent pasts.

I mention to Tim that I have a second bear in the same area, and I hope to promptly capture and remove it. Thus, I'll need the trap returned in a few days. He agrees, and with that we bid each other farewell. I head back to my district, eager for some sleep as it is now well past midnight.

JULY 9—Brring! Brring! Umm . . . I roll over and grope for the alarm clock, but the harsh ringing continues. Through the fog of my half-consciousness I realize that it's not my clock but the office phone that's ringing.

It's Bob Landon, calling to inform me that the bear is back. My enthusiasm has waned a bit as I don my uniform and head out the door. (Later, I had to explain to my wife that I really had returned home the previous night, even though she never saw me.)

When I arrive, Frank and Bob are joined by fellow Deputy Dale Hull and Troy Stump, head curator at ZooAmerica in Hershey. Thanks to Troy's tranquilizer,

they have the bear down and are awaiting my arrival. Everyone expected this bear to show up again, but not so quickly and not necessarily at the very same place. As we make plans to remove the bear, I realize that my one and only culvert trap is somewhere in the wilds of Mifflin County.

I then vividly recall stories of supposedly tranquilized bears suddenly, and without notice, coming to life in the backseats of patrol vehicles. Not to be the next officer victimized by such a casual method of transport, I quickly formulate "plan B."

Bob's son Billy is sent to pick up a transport box at ZooAmerica. Unfortunately, the bear does not cooperate, and with a sudden resurrection, he starts off into the woods. The bruin, staggering up the ridge, has Frank, Bob, Dale and Troy dragging in tow. It reminded me of a tag team, free-for-all, no-holds-barred wrestling match. I sprint to the truck and prepare a syringe to further suppress the critter. Upon my return, though, I'm faced with a new dilemma. The tranquilizing drug is a powerful muscle relaxant that must be administered with great caution. I need to be certain that I stick the bear's rump and not any of the four men.

After much grunting, growling, snorting and an occasional bawl (none of which came from the bear), we manage to again down the critter and stuff the limp hulk into the transport box. "B'ar wraslin'," what a novel way to begin the day, I thought.

Before I again head north I realize that I was scheduled to present a program to several hundred youngsters at a summer camp this morning. I couldn't resist taking advantage of my impressive prop, so I gathered some additional items for a presentation on Pennsylvania's most captivating mammal, the black bear.

While driving out Fishing Creek Valley toward the camp, I passed a motorist heading the other direction. I looked in my rearview mirror and watched as he slammed on his brakes, jumped out of his car and began to frantically wave his arms. Naturally, I stopped. After dashing up to my door the fellow breathlessly exclaimed, "Bear! Bear! Did you just turn a bear loose?" His arms continued to wave wildly as he gestured down the road.

Envisioning the worst, I glanced into my rearview mirror expecting to find nothing more than a shattered oak transport

box. The bruin was still in the box, however, with all latches secure. My eyes returned to the frantic motorist and I, trying to appear calm, replied, "Pardon me, what were you saying?"

The man proceeded to explain that he had just seen a sow with two cubs in a dumpster at a local inn down the road by the camp. Visions of more bruin encounters flashed through my mind, just as I was beginning to feel pretty smug about solving the district's bear problems for awhile. Oh, well, such is the life of a WCO.

The program was a resounding success, and I and my captive were soon on our way to meet Tim Marks. Tim, a veteran bear handler, enjoyed my recount of the morning's folly and suggested that I return to Harrisburg with my own culvert trap. I agreed that that would be a wise choice indeed.

JULY 13—My activities returned to a more normal routine as I continue with the administration and inspections of the special permittees in the district. Today I visit a taxidermist and a fur dealer in the Middletown area.

Later, I'm sent to meet a fellow in Hummelstown who had found a red-tailed hawk. It seems the bird had made the fatal mistake of alighting on a utility line. When its tail touched an adjacent line or conductor, the bird, jolted with a lethal voltage, fell lifeless to the ground. The bird's feet and legs were severely charred and distorted from the intense current. Such mishaps plague larger birds of prey when they land on such convenient, man-made perches.

To finish the evening, Frank Kolaric and I serve arrest warrants in the city of Harrisburg.

JULY 15—While I'm at my desk, laboring over the endless reports, the phone rings. This time I respond to a reported violation in Fishing Creek Valley. Upon his return from church, a resident found a freshly killed egret in his backyard. A second dead bird was seen just down the road, next to a neighbor's pond. A quick autopsy revealed the birds to be laced with shot pellets.

I gathered the evidence and headed toward the most logical suspect, the owner of the heavily posted and fenced pond. After brief introductions, the owner and his son-in-law accompany me to my

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; Northeast, 1-800-228-0789; and Southeast, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

truck. There I display the illegal kills. After some tactful questions and comments, the pair denies any knowledge of the birds' deaths. I noticed, however, that when both fellows had initially seen the carcasses, they immediately looked at their now impatiently shuffling feet.

I continued with my questioning, and a little later, while walking with the suspects around the pond, the son-in-law confesses. It seems the owners took exception to sharing their fishing hole with the egrets. They decided to put an abrupt end to what they considered trout thieves. The law permits destroying certain species of wildlife that are damaging personal property, but migratory birds are an exception.

I finish the evening with a walking tour of SGL 211 and Stony Valley. Summer weekends bring quite a bit of use to these public lands. I'm present to ensure this use doesn't become abused by an unthinking few.

JULY 19—WCOs quickly become accustomed to expect the unexpected during their duties. Officers learn to adapt to the situations at hand and are able to vary their approaches accordingly.

Today I was required to make do with what was available at the time. My patrol vehicle was high on a service garage hoist, receiving much needed repairs, when I received a call for help. Hunter-Trapper Education instructor Howard "Mac" McKamey needed help removing a large hawk flying around the inside of his neighbor's home. The bird was quite

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GAME NEWS

For a Friend . . .

healthy, and the home owners, shaken by the intruder's presence, were very reluctant to be inside.

I grabbed a cardboard box at the garage and was on my way. Deputy Larry Mummert assisted as we drove to the scene in Steelton. There, Mac and the home owner escorted us to the bedroom to confront the wayward bird. I slowly opened the door and was instantly greeted by a flurry of feathers and wings. Yes, indeed, the hawk, an immature red-tail, was very much alive and well, obviously eager to leave the confines of the room. Shattered glass and shredded curtains littered the furniture and floor. The bird had entered the home by crashing through a window but wasn't able to find its way out. I quickly closed the door and began to formulate a plan.

The home owner volunteered a broom handle to help me in my venture. I once again entered the arena, closing the door behind me. There I stood, the mighty gladiator, armed with a 4-foot broomstick and an empty cardboard box, facing my adversary, a frenzied raptor brandishing eight strong, sharp talons. The plan? Get the bird. How? Any way possible.

After several minutes of crashes, thuds and an occasional yelp (hawks don't yelp, by the way), the owner peeked in to see if I was all right. I assured him that I was in total control and not to worry. I did, however, ask if he had anything of great value in the room, and if his home owner's insurance would cover such a calamity.

Several more minutes passed before I not so skillfully poked, prodded and guided the wayward creature back out through the broken window. The hawk alighted on a nearby pole, shook itself, screamed a few times, then vaulted skyward, seemingly none the worse for wear.

I regained my composure and opened the door. The anxious home owner surveyed the shambles but was overjoyed

that the bird had been removed unharmed. I thanked him for his understanding and assistance.

JULY 24—The day and evening found me and fellow WCOs from throughout the region at SGL 182 near Kutztown in Berks County. We were there for training and another mandatory firearms qualification shoot. Similar to the course I described in my March column, we consider this shoot the "fair weather" test of our skills and abilities. Such training in firearms proficiency cannot be overemphasized.

JULY 27—This evening I begin to investigate the dumping of more than 80 old automobile tires on SGL 246 outside of Middletown. As the solid waste crisis continues to tax the limits of available landfill space, more and more illegal dumping activity results. All too frequently, state game lands are the recipients of this unwanted refuse. Appliances, furniture, tires, building materials and household rubbish are common items scattered upon these lands. Public education, recycling and alternative uses for discarded items are logical alternatives to this growing problem that merits intensified patrols by WCOs.

A week or so earlier, 150 or so tires were discarded on a Lebanon County game lands. I wonder if the incidents are related as I drag that last of the rubber out of the brush. After placing the items on a huge pile near the game lands sign, I photograph the heap for evidence purposes. Crossing my fingers, I hope for success as I probe the area for some additional clues. After a lengthy check, I fail to find any further leads.

JULY 30—I finish the month on an upbeat note, as I conduct a program for the Easter Seal Society at its summer camp in Lower Swatara Township. Despite their handicaps, the campers are eager and enthusiastic in learning about our state's wildlife treasures. Groups such as this renew my spirit and raise my motivation in the performance of all my duties.

See you next month as activities begin to increase, heading into a WCO's most hectic and demanding time of the year.

YOU CAN HUNT birds without a dog. You can learn the haunts and habits of wildfowl, beat the coverts and slip through the marshes, and bring back a harvest of solace, self-understanding, and game.

Yet to hunt with a dog—to league yourself with an animal bred and honed for the hunt, whose form, character, and identity are defined by its purpose—is to become more fully involved in this basic natural endeavor. I had heard hunters say they would not hunt if they could not do so in company with a dog; I only half-believed them. Then I got a dog, and took a quantum jump forward in my effectiveness as a hunter and in my enjoyment and understanding of hunting. If life's circumstances changed and I found myself dogless, I might go on hunting, but it would be a second-hand sort of thing carried out in elegy to what had gone before.

When hunting, a dog will amplify your senses. It will sniff out game you never would have found. It will announce the presence of game birds in advance. It will run down and recover wounded birds. Its enthusiasm will infect you. It will bring friendship and love to the joint venture of the hunt. Its very presence will help you focus on the task at hand, and you will perceive the world—and your place in it—in a new and expanded way.

Humans have had dogs to help them hunt since time immemorial. Who knows how the partnership evolved? We can only guess. Bands of hunters were followed by packs of wild canines, perhaps wolves. The dogs scavenged at the humans' kills. Their presence in some way helped the people. Their nighttime barking sounded an alert for prowling lions or bears; their excited cries exposed prey; or the dogs tracked down wounded animals, the hunters following and dispatching the prey, then leaving a portion of the kill behind.

As centuries passed—not so very many of them—dogs were given places in the permanent domiciles of humans. Worldwide, agriculture arose and be-



Chuck Fergus

came dominant, the human population burgeoned. Hunting went from being a necessity to an occasional pastime, a humbling of self to the status of animal in the hierarchy of animals, a personal ceremony hearkening back to our roots. And the dog stayed on, hunting with us.

The veneer of breeding is a thin one: Let purebred dogs mate outside of their lineage, and in two or three generations all that will be left is a mongrel bearing no resemblance to its forebears. How plastic, this creature *Canis familiaris*: Breeds arise, thrive, are used as foundation stock for other breeds, change size or coat length or conformation or color, fall out of fashion, disappear. (How fickle, this creature *Homo sapiens*.)

There are three main types of bird dogs: flushing spaniels, retrievers and pointing dogs.

I have a *flushing spaniel*—an English springer spaniel named Jenny. This is how she hunts: She runs back and forth through likely looking cover in a pattern like a windshield wiper's. As soon as she smells a bird, she homes in on it and charges, pushing it into the air. I have to keep her hunting close, or she will flush the birds beyond gun range, which is exasperating. Then, if I do my part and shoot straight, she will fetch back the grouse, woodcock, pheasant or duck.

I have gotten a bit lackadasical, hunt-

Chuck Fergus's book about his springer spaniel, *A Rough-Shooting Dog: Reflections from Thick and Uncivil Sorts of Places*, will be published this fall by Lyons & Burford, 31 West 21 St., New York, NY 10010. Lyons & Burford will also publish a second Fergus title, *The Orvis Book of Bird Dog Breeds*, scheduled for spring 1992.

ing with Jenny. No longer do I mark grouse down carefully, or charge off through the brush to where a pheasant fell. I let Jenny do the work. I sit back and wait, and soon am rewarded by a pair of amber eyes riveted on mine, below them a bird pinned securely—never roughly—between her jaws.

Good Performances

In general, you can get a good performance out of a flushing spaniel with a minimum of training. Basically, you teach the dog obedience commands (this can be accomplished in the yard). You reinforce its instinct to fetch (this can also be done in the yard). You get it used to finding game close to the gun (I did this using barn pigeons, dizzied and placed in cover at my feet while Jenny was looking and working in another direction—she checked back in with me,

and that's when she encountered the birds). And then you go hunting.

There are spaniels of several sorts. Some are rare, such as the Sussex, Clumber, and field spaniels. (The Sussex is a reddish dog, stocky, and short-legged. The Clumber is even stockier and closer to the ground—sort of a bird-finding basset hound, trundling through the thickets.) The Boykin spaniel was developed in the South to hunt ducks and doves. The American water spaniel is a curly-coated breed from Wisconsin (where it is the state dog), and the English cocker is a smaller version of the English springer, which is the most common flushing spaniel.

The *retriever* does just what its name describes. It fetches back killed or wounded game. It is a sobering fact that a certain number of birds are wounded and then lost.

Retrievers will fetch from marsh, open water or dry land. Strong and mentally tough, they will swim long distances, fight swift current, and bull through dense vegetation to find game. Extra body fat and thick coats protect them from cold and wet. On land they are expected to walk, stand or sit quietly, and fetch after the shooting is done. Most retrievers can be taught to work like spaniels, probing into upland cover to flush game for the gun.

As with spaniels, much of the train-



ing for retrievers can be done in the yard, using dummies instead of live birds. Because their tasks require them to cooperate closely with their handlers, retrievers have been bred to be easy to control and train. They can be taught to make "blind" retrieves, following whistle and arm signals to find a bird they didn't see fall. Actually, simple obedience training, combined with the retriever's natural desire to please and its strong instincts to hunt and fetch, may be all that is needed to develop an effective gun dog.

The Labrador retriever is the most popular retrieving breed—in fact, the most popular hunting dog in America today. The Chesapeake Bay retriever is the biggest and toughest, capable of plowing through icy water and consistently handling Canada geese. The golden retriever is handsome, intelligent and effective in the uplands. The flat-coated and curly-coated retrievers and the Irish water spaniel are uncommon breeds (only 414, 118, and 98 dogs, respectively, were registered with the American Kennel Club in 1989) that may be just what some hunters are looking for.

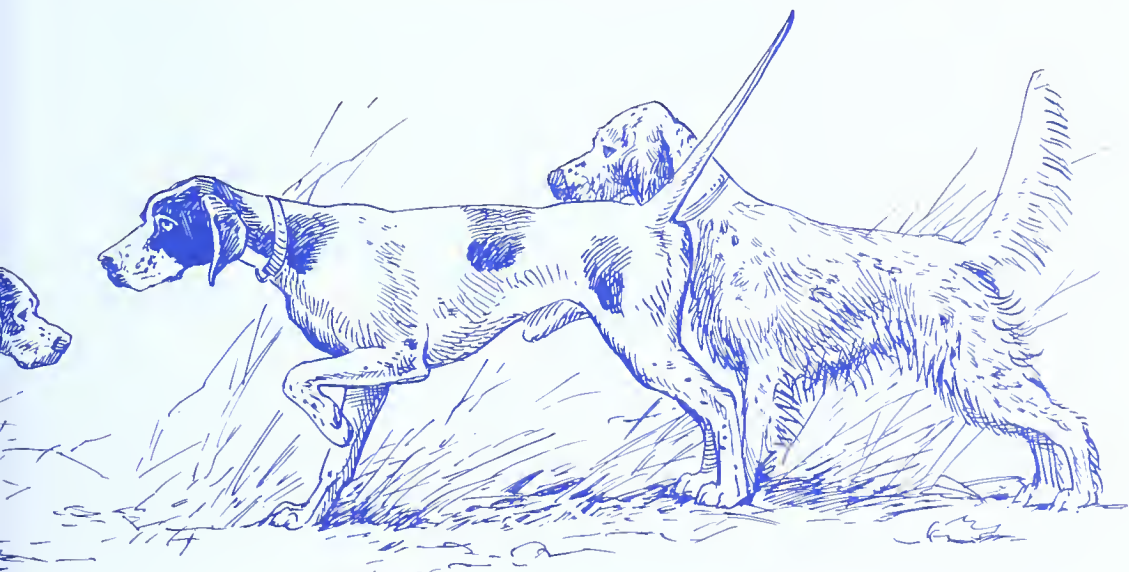
The major advantage of a *pointing dog* is that it can hunt beyond gun range, covering more territory than can the flushing spaniel or retriever. A good pointing dog seems to float through the



cover, running effortlessly, questing for scent, shifting from one likely place to the next—until it stops, sometimes almost skidding into a stance of utter immobility, eyes staring, limbs rigid, its whole body announcing to the hunter that game is at hand.

Harder to Train

In general, pointing dogs are harder to train than flushing spaniels or retrievers. Theirs is a more exacting task: to get close enough to a bird to scent it, yet not so close that the bird is frightened into running or flying off. Pointing dogs need lots of work, lots of exposure to real birds. While it is possible to hunt with a half-trained spaniel or retriever, a half-trained pointing dog will drive you to distraction by bumping distant birds and ignoring whistle commands.



The well-trained pointing dog is a bold, independent hunter who nevertheless maintains contact with the handler and responds to directions. Where the country is open, the dog ranges ahead; where the cover is thick, it tightens its pattern. On point, the dog holds—remains “staunch”—as long as the bird stays put. If the bird runs, the dog eases out of the point and casts ahead, freezing again when it hits hot scent. When the bird is finally pinned, the hunter walks in and flushes it.

In contrast to the spaniels and retrievers, which love to fetch, many pointing dogs are not too keen on retrieving. Often the people I’ve hunted with were satisfied if their dogs simply went on point when they got a whiff of a dead bird. The dogs had trouble catching cripples, though, because their instinct and training told them to hesitate before running in and grabbing the prey.

In general, a hunter will get more shots behind a flushing dog, and possibly bag more game. But he will connect on a higher percentage of shots taken over points, because he will have more time to get ready before the bird goes up.

The pointing breeds are split into

two groups. Members of the first group, the long-haired setters (English, Irish, and Gordon) and the pointer, which has a short coat, came from Britain and have been in America for hundreds of years. The so-called versatile or continental breeds have been imported from Europe during this century: Brittany, German shorthaired pointer, German wirehaired pointer, pudelpointer, vizsla, Weimaraner, and wirehaired pointing griffon.

As I think back on hunts I have made, the best have been with dogs. The pointer crouched on the fringe of a cloud of woodcock scent, the bird invisible in the mosaic of fallen leaves until I or my partner took one more step and sent it fluttering. The spaniel, yanked around sideways by bird scent, redirecting its charge, the suddenly besieged pheasant blooming from the grass like a bright exotic flower. The retriever, whose upraised eyes bulged a bit wider as their pupils contracted, the dog’s ears pricking and its tail brooming the creekbank mud: Soon the falling-leaf shapes of fowl would reflect in those avid amber orbs.

I did not need to kill a bird to remember those days or those dogs. It was enough simply to share their fire.



Start Sometime

By Keith C. Schuyler

IF YOU'RE a youngster, it may be best if you get this before your dad does. Then he can blame me if you slip it under his breakfast plate some morning. Providing, of course, that you and I can get on the same wavelength about the subject of archery.

If you are already into this bow and arrow business, maybe I can give you some ideas you might use to encourage some of your friends to become involved, particularly if they don't have a dad or anybody else at home to lean on. For thousands of years people in nearly every corner of the world have been involved in archery. Shooting the bow is practically an instinct.

Well, hunting with it is. And I suspect that everyone who picks up a bow entertains the idea that sometime he would like to go hunting with it. Even girls think along those lines, I think, even if they start the sport by shooting only at targets. There is nothing wrong with that. Whether or not you think about hunting with a bow sometime in the future, you're going to need plenty of target practice.

If you do get into deer hunting with the bow, you may be tempted eventually to set your sights a bit higher, for bear, elk or moose, perhaps. A lot of this depends upon whether your dad or your hunting partners are willing to save up for such a trip. But I'm getting way ahead of myself. Maybe at this point you are merely thinking about taking up archery.

How old should a person be before starting to save entertainment money or finding a summer or after-school job to buy archery equipment? Or when should he start tossing hints to dad or mom or grandparents for some of the extras such as membership in a local archery club or maybe even a hunting license?



WHAT'S THE BEST age to begin archery? The answer is determined by an individual's desire and willingness to practice. At a novelty shoot held by the Northhampton County Bowfest, this young archer showed that hard work pays off as he was able to hit a suspended ping-pong ball.

I don't know. That's up to each individual.

I was 20 years old when I got interested in archery. I probably would have become involved at an earlier age, but nobody in our area knew anything about the sport, and archery equipment was tough to come by. For the most part, we made our own from rough blanks that we purchased. There were few books or other literature that we knew about, so we pooled what





TOURNAMENT SHOOTING is a great way to get involved in archery; the medals on this lad's quiver attest to his commitment to the sport. Competition can be a fun way to improve skills and is a great chance to learn from fellow archers.

get much of their information between book covers. Some even have gone on themselves to write about what they have learned.

How old should you be to get started?

Johnny Williams of Cranesville started competitive shooting at age 10, when he placed seventh among cadet boys at State College. As a junior shooter, he won the national championship at age 13. The same year he shot his first deer with the bow, a 6-point. At 14, he started shooting in the men's class and began setting records all over the country. At 17 he won the World Championship at York, England, and came home to win the National Archery Championship.

When archery was again introduced to the Olympics in 1972, after an absence of 52 years, John Williams was one of those representing the United States at Munich, Germany. At age 18, then, he brought home the gold. In 1984 he returned to the Olympics as coach of the U.S. archers.

Darrell Pace, Ohio, won the Olympic gold in archery for the first time in 1976 at the age of 20. When President Carter boycotted the games in Russia, Pace was on the Olympic team but could not compete. He repeated his grasp on the gold in 1984, however; at the games in Los Angeles. On the way to those honors, Darrell broke many records and was U.S. national champion five times.

How old should you be to get started? There is no specific age. But there is an indication in the splendid records of those two men who began as boys that archery is a fine activity for just about anybody. There have been many other top archers, male and female, who started at an early age to shoot their way to fame.

Take Rick McKinney. He started shooting the bow at age 10. He was on

little information was available. Our gang consisted of young men and their younger brothers. Some of our guys were in their early teens. We made some butts and targets and cut loose. The results were, well, terrible.

We learned more bad shooting habits with our inferior equipment than a mouse has mice. It took some of us years to unlearn a lot of our bad habits, but some from our group went on to become good archers. They won medals in competition and became proficient archery hunters. Since those days, of course, people get started at much younger ages. That's largely because equipment and information on shooting has become readily available, along with money to obtain it.

But the best source of information for the typical novice shooter came from the better archers in the many clubs that sprang up after World War II. The same is still true today. No matter how much you read, there is no substitute for rubbing elbows with those who become good, or even expert, through continued shooting. Even the best archers, though, readily admit that they



FOR SOME, the primitive lore associated with archery is what attracts them to the sport. David Kissinger spent years hunting with primitive equipment, which he made himself, before he killed this 4-pointer. Hunting with such crude instruments should be left to the experts who devote themselves to the challenge.

two Olympic teams, placing fourth in 1976 and winning the silver medal in 1984. In addition to many other archery honors, he also won the U.S. national championship three times.

I could go on. But one thing stands out among the archers who have attained high honors and made U.S. archers famous worldwide. Most started to develop their skills at an early age. And many of them have attained great satisfaction with their bows on the hunting scene.

If we go back to the year 1363, we find that in England every male between seven and 60 was required by law to shoot the bow on Sundays and holy days.

It is true that early in the history of modern archery comparatively few youngsters were successful hunters. Bows were fairly slow, and it took then, as now, a minimum of about 40 pounds of back pressure to deliver an arrow suitable for big game such as deer. Even at that bow "weight," assuming

the young archer came to his full draw, long bows—and even the later recurves—were marginally adequate for big game hunting. And not many younger shooters could hold this back pressure long enough to shoot well.

The advent of the compound bow changed much of that. A compound not only relaxes to a lower poundage at full draw, at full power it also delivers an arrow with more speed compared to earlier bows. The average 35-pound compound will deliver an arrow with roughly the same efficiency as a longbow or recurve bow of 40 pounds or so draw weight.

Despite those advantages, I feel that a beginning archer would do well to start by practicing with a recurve or longbow. This will provide a better understanding of the relationship between the bow and the archer. What you learn at that stage will help if you choose a more sophisticated compound later. Of course, any bow is but an extension of the archer's physique that

allows him to deliver an arrow to a target.

Interestingly, all Olympic, national and international association amateur records have been set with recurve bows. It has been considered unfair to make archers with such bows compete against the compound bow. We can't take anything away from the greater shooting potential of the compound. And it must be remembered that the developing recurve bow practically drove the longbow from competition because of its greater efficiency.

Also worth mentioning at this point is the resurgence in interest for the primitive type bows by those who believe the compound is too far removed from the challenge and romance associated with archery. They attach much more importance to, for instance, a deer taken with a longbow or recurve than an animal shot with a compound bow. The compound has had acceptance for only about the past 20 years, whereas previous bow designs date back 10,000 or more years. Those using such equipment accept the need to get closer to game for a killing shot. A remote comparison might be taken with those who drive antique cars despite the much better ones available today.

There is one man, David Kissinger, Mifflinville, who last year shot a fine 4-point with equipment he made from materials naturally available, from his

homemade bow to an arrow tipped with an obsidian (natural stone) head. Even the broadhead and the fletching of the arrow were fastened by sinew, a tough material taken from tendons of a deer. Only the bowstring was made of synthetic material.

What an experience it must have been, to take a deer with roughly the same equipment as those who thousands of years ago had to rely on the bow for sustenance.

I don't recommend that anyone but an expert in fashioning such equipment attempt to take game with it. In archery, it is necessary to match ability with equipment of sufficient killing capability.

So, whether you are already involved in archery or just thinking about it, what is presented here is intended to encourage your ability rather than tempt you to move into the ranks of top target shooters and hunters.

- We must always keep in mind that the instrument we take in hand was once the main weapon of war and has killed even elephants and polar bears. The need for safety is no less than when handling a gun, a car or a canoe.

The sport of archery does represent a step back in time. But it is a step forward at any age to the special satisfaction ever dependent upon the coordination of mind and muscle that makes an archer.

Wilderness Leadership School Contest Winners Named

Three teachers have been selected by the Lehigh Valley Chapter of Safari Club International to attend the 10-day American Wilderness Leadership School, which was profiled in the March GAME NEWS. The school, held near Jackson, WY, teaches outdoor education skills and techniques. The Lehigh Valley chapter is paying all expenses for the contest winners. The following individuals were chosen: Ralph Martone, New Castle, a science teacher at Butler Senior High School; Michael W. Lubich, Jefferson, a senior high school biology teacher at Mapletown Junior/Senior High School; and Gloria Gaynor, Pottstown, a fifth-grade teacher at Woodland Elementary School. Personnel from the Game Commission's Information & Education Bureau selected the three fortunate teachers. Applicants submitted 500-word essays explaining how the experience and knowledge gained through participation in the school would contribute to educational and career objectives.



LEWIS TOOK his first woodchuck when FDR was president, and he shot it with a Winchester Model 60 single-shot 22. It wasn't long, though, before the long-range bug bit him and he began to experiment with calibers that had a lot more reach. When Remington came out with its 222 round, Lewis realized 250- to 300-yard shots were well within his grasp.

The Varmint Rig

By Don Lewis

Photos by Helen Lewis

"IF THERE'S anything better than woodchuck hunting, it can only be apple pie with ice cream," was the flat-out statement of a young fellow looking at a gun catalog. "Even at today's prices, a rifle and scope setup designed for chuck hunting, such as a Model 722 Remington 222 with a 10x Unertl Ultra Varmint scope, costs only around a couple hundred dollars."

"Why would you need something like that?" inquired the elderly service station owner. "Two hundred dollars sounds like a lot of money for a rifle and scope, especially if it's only good for woodchuck hunting. I still use a Win-

chester Model 61 pump 22 with open sights that I bought new in 1938 for less than \$30. I've kept the chuck population under control on the farm with that pump rifle. It's really accurate."

"Did you ever shoot a chuck farther than 50 yards away?"

"No, I never had to. When I was a boy





ANOTHER CARTRIDGE development that aroused interest among varminters was the 6mm PPC, here chambered in a Sako Hunter. In long-range shooting, quality optics are important, and on this rifle Lewis has mounted a Bausch & Lomb 6-24x. Supports like the Cravener Micro Rest offer the shooter a stable platform for a good hold.

I learned how to get close so a head shot was possible.”

“The rig I’m using is accurate up to 275 yards. I don’t have to worry about getting close. In fact, sometimes I move back so the shot will be longer. Truth is, the longer the range the better I like it. I’ve connected at 300 yards a few times.” Putting the catalog on the counter, he left.

The salesman shook his head in apparent disbelief and picked up a broom. After looking at the closed door for a few seconds, he came over to me and said, “Why in tarnation would anyone want to shoot at a woodchuck 300 yards away?”

I think it’s obvious that the price I just quoted for the Remington 222 and Unertl scope sets the scene of that episode as occurring in the late 1950s. Although my feelings ran parallel with the young chuck hunter’s, as opposed to the elder salesman’s, I paid for my gas and left without comment.

I shot my first chuck around the time President Roosevelt made his famous “nothing to fear but fear itself” speech. The rifle I used was a Winchester Model 60 single-shot 22 rimfire, and the distance was about 20 yards. Like the old hunter said earlier in this column, the primary goal back then was to get close.

From that simple beginning, with a rifle that cost \$5.95 in 1932, I have run the gamut of varmint rifles and scopes. Admittedly, it was several years after returning home from World War II that the chuck-hunting fever settled into every bone of my body.

I had always been a groundhog hunter, but Remington’s 222 cartridge changed my philosophy on varmint hunting. The range limitations of the 22 rimfire, 25-20 Winchester, 22 Hornet and 218 Bee kept my shooting well below 200 yards. The Remington 222 had 250 yards written all over it and, when the wind was quiet, 300 yard shots were

not out of the question. It wasn't long at all before I came down with long yardage syndrome.

I had a full-time job, but every spare moment through those years from 1952 to 1960 was spent in search of the ultimate woodchuck rifle. I have no idea how many blueprints I put together for the perfect woodchuck rig.

I'll spare most of the details, but one design that sticks in my mind was a proposed 14-pound 22/30-30 with a 30-inch heavy barrel in a benchrest action. Buried in the thick forend of the stock was a folding rest that could be adjusted for either sitting or prone shooting. To stabilize the stock in the prone position, I designed a small adjustable pin that also fit flush in the toe of the stock. The monstrosity never came to fruition, yet I still smile when I think how ridiculous my idea was.

The 22/30-30 cartridge is a late 1940 P.O. Ackley creation that is nothing more than a full-length 30-30 case necked down and fire-formed to obtain a sharp, 40° shoulder. This 224 caliber wildcat cartridge has about the same potential as the 22-250 Remington. It enjoyed a fair amount of popularity into the late '50s.

In 1956, Winchester offered a heavy barrel Model 70 that was a spin-off of its older Model 70 target outfit. The new version was chambered for the 220 Swift and 243 Winchester. The outfit had a 26-inch barrel and a varmint-type stock. Prior to Winchester's new varmint rifle in 1956, heavy barrel varmint rigs were turned out by custom gunsmiths. And that might explain why I spent so many hours during that time period designing a special woodchuck rifle.

The varmint rigs in the 1950s weren't tack drivers by any means, but I printed a number of 1-inch 5-shot groups on the 100-yard range with a Model 722 Remington 222 topped with a Unertl 8x varmint scope.

There weren't too many varmint rifles on the store shelves after World War II. Winchester's bolt-action Model 43 chambered for the 22 Hornet and

218 Bee at less than \$65 got a lot of hunters interested in chucks. Savage Company offered a 22 Hornet in its bolt action Model 342 Varminter at under \$50.

Both the Winchester Model 43 and Savage 342 had horrendous trigger pulls. I tested both rifles extensively on the range and in the field, and I always had a problem with the trigger let-off. Accuracy with the Hornet cartridge was somewhat disappointing.

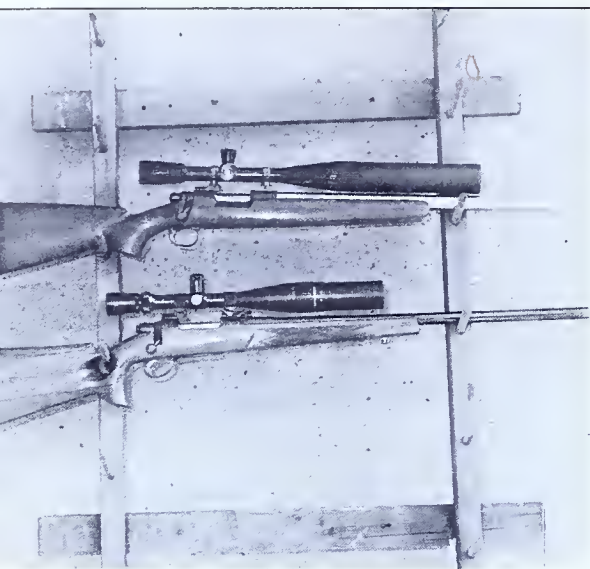
Remington's 722 carried a 26-inch barrel with a 1-in-14 twist. Its best feature was the three-stage trigger setup that had what the company called a "lighting fast let-off." Being able to adjust pull weight and eliminate free play and overtravel gave the Model 722 a distinct accuracy advantage over its competitors. The 722 was also chambered for Remington's 257 Roberts in a 24-inch barrel version that had a 1-in-10 twist. The faster twist stabilized the heavier 257-caliber bullets and gave the chuck hunter a truly long range cartridge/rifle combination.

Second Fiddle

It seems ironic that Winchester's 220 Swift, with its 4140 fps velocity in a factory load, played second fiddle to cartridges such as the Hornet, Bee and, eventually, the 222 Remington. In all fairness, the Swift is a superior varmint cartridge. It did outperform all its contemporaries and, by holding velocities to around 3500 fps with 55-grain bullets, the Swift doesn't have too much trouble covering 400 yards when the wind is low.

It was introduced in 1935, just five years after Winchester put the 22 Hornet on the market. Right from the start, wild claims of barrel burning, throat scorching and case breakage doomed the fastest velocity cartridge put out by any factory.

The powerful Swift never garnered the acclaim heaped on the Hornet. Winchester apparently gave up quickly on the Swift, and to shake more salt in the Swift's wounds, Winchester brought out the 218 Bee in 1938, in its



LEWIS CONSIDERS these two varmint rifles to be among his most accurate guns. At top, a Remington 40XB-BR in 222 caliber. It sports a 36x Bausch & Lomb scope, and its trigger is set at two ounces. The other is a custom Dumoulin 22-250 with a thumbhole stock; the scope is a 6-20x Simmons.

1972, the 225 cartridge was dead or in a moribund stage. The Swift is still king.

I think it's safe to say that nearly every enthusiast who converted to the 222 when it came out over estimated the range potential of the new creation. Any hunter accustomed to shooting woodchucks at 25 yards or less with an open sighted 22 rimfire rifle was awestruck when his new scoped 222 nailed a chuck at 200 yards. The old storekeeper, who watched me removed a chuck from a brush pile 275 yards away, declared, "How did you hit that? I couldn't even see the varmint." His Iver Johnson 22 single-shot rimfire served him well for ridding the garden of marauding whistlepigs, but he had never looked through a scope.

I have to confess that I followed the "long yardage pack" for several years. I tossed dozens of 50-grain 224 bullets at chucks that were far beyond the accuracy potential of my 722 Remington 222. One evening I toppled a chuck at more than 275 yards, but I had no idea where the bullet hit. I thought I had a perfect head hold on the standing chuck, but the bullet hit low in the rib cage—a miss of some six inches or more. After several experiences like that it dawned on me that bullet placement is the paramount objective and not going all out for occasional hits at long range.

I was doing a good bit of reloading at the time, but not much testing. I came to the conclusion that a handloader should extensively range test his loads to know the results of his efforts. At that time I didn't fully understand how my handloads shot. I built a benchrest and started to tests my loads by shooting groups. I wasn't too long until I had a primer/powder/bullet combination that shot tight groups. Learning to shoot tight groups also taught me a few things about shooting.

Model 65 lever action rifle. The 218 Bee is a necked-down 25-20. It wasn't that accurate in the lever rifle, but will do some better in a single-shot bolt action.

As the accuracy potential of both the Hornet and Bee is erratic, a step in the right direction is to rechamber to a Mashburn or Improved Bee. After fire-forming, the original body taper is reduced and the neck or shoulder angle is sharpened from 15° to 28°. By doing this, better ballistics and a higher degree of accuracy are obtained.

Rechambering Required

Any competent gunsmith can rechamber the Hornet or Bee to the Improved Bee by using a Clymer Manufacturing 218 Mashburn Bee finishing reamer, and reloading dies are available from RCBS. Improved cases are made by fire-forming regular 218 Bee factory rounds in the Improved chamber. However, I ran into a neck splitting problem when I fired full-power loads in the Improved chamber and had to resort to filling a primed case full of slow-burning powder, a bit of facial tissue to hold the powder in the case and no bullet. Be sure to swab the barrel after every fire-forming shot with a dry patch to remove all fouling.

As a final note on the Swift, Winchester introduced its 225 Winchester in 1964 as a replacement for the Swift. By



JIM PEIGHTAL holds a Ruger Model 3 he rechambered to 218 Mashburn Bee. The buttstock is from a No. 1 and the fore-end is a modified No. 3. The action's operating lever had to be modified to accommodate the buttstock's pistol grip. Lewis says rechambering to the Mashburn round is one way to get better accuracy from the 218 cartridge.

My field shooting improved, and my chuck hunting philosophy changed dramatically. I was no longer interested in only long shots; precision shooting and bullet placement replaced distance. At that point, chuck shooting became a whole new ballgame for me.

Today's varmint hunter has a vast array of factory rifles available at reasonable prices. I believe it's safe to say that most heavy barrel varmint rigs offered by the factories are accurate. I have tested literally all of them—both on the range and in the field. Their accuracy potential is amazing.

When I look at jagged, one-hole 5/8-inch 5-shot 100-yard groups from heavy barrel varmint outfits such as the Winchester Model 70, Remington 700, Ruger M-77 or No. 1, and Sako PPC, I think of the benchrest clan of the late 1940s. Lyman's 1950 *Ideal Handbook* No. 40 states that Marcy Prescott won the Donaldson Trophy at the 1948

Johnstown, NY, benchrest tournament with a 10-shot, 200-yard group that measured under 1½ inches. Working with an inexpensive Ideal "nutcracker" tool, Prescott used just one case and loaded each round at the firing line.

That was remarkable shooting for that time period, but I have fired 1-inch 5-shot groups at 200 yards with a fair share of today's heavy barrel varmint rigs.

With all the accuracy built into the modern varmint rifle/cartridge, I am not opposed to the custom job. It may not be more accurate, but the varmint hunter can have precisely what he or she wants, and that's important.

I've hunted the hole-diggers for more than 55 years and fired a lot of different varmint guns and rounds. You would think the excitement would be gone by now. That's not the case. A well-tuned heavy barrel varmint rig still churns the adrenaline in my veins.

In the wind

j. scott rupp



Ducks Unlimited recently received a \$2.5 million check from Secretary of the Interior Manuel Lujan. The money represents the first appropriated wetland funds under the North American Wetlands Conservation Act, which was signed into law by President Bush in 1989. The appropriation will be used to help protect South Carolina's 350,000-acre ACE basin, one of the largest undeveloped tracts of wildlife habitat on the Atlantic Coast.

Arkansas recorded a near-record 993 bald eagles and two golden eagles during its two-week midwinter count in January. The survey's coordinator said a high count is normal during severe winters, when conditions force eagles from northern states. "It's good to see such a good number of birds in the state during a relatively mild winter such as this one," he said.

According to a New England Journal of Medicine report, a jogger bitten by a horse fly or deer fly has contracted Lyme disease. It was commonly believed that only deer ticks carried the disease. In light of this incident, outdoorsmen should take extra precautions while afield.

Arkansas' Waterfowl Task Force conducted 13 operations over an 11-day period last year, making contact with nearly 2,000 hunters in the field. The 16 officers on the task force put in more than 1,200 hours, and the result was 141 citations for illegal hunting activities. Costs associated with the program ran almost \$6,500, but the task force collected \$13,000 in fines.

Michigan's legislature authorized a conservation law enforcement stamp. It's designed to allow people who don't hunt or fish to contribute funds to the state's department of natural resources law enforcement division. Sportsmen, too, can purchase the stamp, to make greater contributions than they already do. The 3-inch high stamps adhere to car windows and other surfaces.

A New York wholesaler convicted of illegally importing African elephant ivory carvings was fined \$100,000 by a U.S. District Court judge. Pacemark Corporation provided a false bill of lading to the U.S. Fish & Wildlife and U.S. Customs services for the shipment, indicating the ivory figurines had been consigned before the U.S. importation ban took effect in June 1989. Pacemark imported \$50,000 worth of ivory merchandise, which would have been worth several times that amount on collectors' markets.

Although it's not a water-stricken state on the order of California, Connecticut is instituting water conservation measures. Highlights of legislation passed by the state in 1989 currently being implemented include requiring utilities to provide free water saving kits to residents; establishing stricter water efficiency guidelines for plumbing fixtures; and establishing a state water resources policy that makes water conservation a top priority. According to *Connecticut Environment*, the new laws constitute a "win-win situation" where resources are protected through conservation and utility supplies are extended.

Some farmers in Dakota County, Minnesota, are participating in a contest in which they pledge not to fall-till at least 25 acres of any annually seeded crop. The contest is being sponsored by the county's soil and water conservation district, and more than \$2,500 in prizes donated by area businesses will be handed out. Eliminating fall tillage conserves moisture, helps stop erosion and provides wildlife habitat.

Answers: The four basic needs of wildlife are food, water, shelter (or cover) and space. The term that best describes them is habitat.

1. predation, 2. disease, 3. weather,
4. overcrowding, 5. parasites.



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PENNSYLVANIA GAME NEWS

AUGUST 1991

ONE DOLLAR





At the Den, featuring a pair of red foxes by Lancaster County artist Laura Mark-Finberg, is the ninth limited edition fine art print available through the Game Commission's "Working Together for Wildlife" program. As with previous editions, *At the Den* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125, delivered; framed prints are an additional \$97.50. Limited numbers of the 1986, '87, '88, '89 and 1990 prints, featuring the kestrel, elk, egret, white-tailed deer and bald eagle, respectively, are still available. Invest in the future of Pennsylvania's wildlife—and yours, too. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

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FEATURES

Pigeons: A Bird Dog's Best Friend 3
By John W. McGonigle

Silver Anniversary Buck 6
By Gerald O. Zeiber

**The Pennsylvania Waterfowl
Management Plan** 11
By Joe Kosack

A Day In The Dove Fields 16
By Bob Sopchick

What Were the Results? 20
By Robert C. Boyd

Centerfire Squirrels 24
By Carl W. McCardell

Turkey the Hard Way 28
By Marion Younkin

NEWS

Field Notes 34

Conservation News 39

In the Wind 64
By J. Scott Rupp

COLUMNS

Fun Games 26
By Connie Mertz

Outdoor Wildlife Learning 42
By Bill Einsig

A Vanishing Act (Another View) 44
By Linda Steiner

WCO Diary 47
By Keith A. Snyder

Thornapples 51
By Chuck Fergus

Indoors With PSAA (Archery) 55
By Keith C. Schuyler

The Powder Scale (Guns) 59
By Don Lewis

COVER PAINTING BY MARIE BRUMMETT
(Cover Story on Page 5)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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Migratory Bird Harvest Information System

NEXT YEAR, in all likelihood, Pennsylvania will be participating in the pilot phase of a U.S. Fish & Wildlife Service program designed to provide a more accurate and sorely needed method of measuring hunting pressure and harvests of all migratory game birds, particularly mourning doves and American woodcock. The new program, the Migratory Bird Harvest Information System, is scheduled to be in effect nationwide by 1998. Participating with Pennsylvania in 1992 will be California, Minnesota, Missouri and South Dakota.

With many details yet to be settled, the way it appears now, as of July 1, 1992, to hunt waterfowl, mourning doves, woodcock, crows, coots, gallinules or any other migratory game bird in Pennsylvania, hunters will be required to fill out a short form and have in their possession a signed "Migratory Bird Harvest Information Card." Cards will be obtained from hunting license issuing agents — not post offices. A \$2 fee may be charged to cover agent fees and administration costs; this program is not meant to produce revenue.

Hunters will then be expected to use the card to keep a log of their hunting activities. After the seasons are over, the Fish and Wildlife Service will contact a sample of hunters for information about where and when they hunted and what birds they bagged. Lists of names and addresses will remain confidential and be destroyed when no longer needed.

Currently, most information about migratory bird harvests is obtained by surveying hunters who purchase federal migratory waterfowl stamps. Several pitfalls, however, have long plagued this system. First, many hunters designated to receive survey cards with their duck stamps never do. Second, many hunters don't respond to the voluntary questionnaires. And, finally, of the country's five million migratory bird hunters, only 2.7 million hunt waterfowl. Consequently, the remaining 2.3 million are excluded from the survey.

While that system has served well enough in the past, despite its shortcomings, the need for better information on hunting pressure and harvests of doves, woodcock and other webless migratory game birds has long been recognized. And with the current declines in woodcock populations in the eastern United States and mourning doves out West, all coupled with the adverse effects of a growing human population, habitat loss and droughts, the time has definitely come to implement a better system.

The fundamental problem is that dove and woodcock hunters don't fit into any sampling scheme because they don't need any particular license or stamp. Through the Migratory Bird Harvest Information Program, however, the names and addresses of all migratory bird hunters will be available, and adequate samples for sound management information will be readily obtainable.

Nobody relishes the idea of burdening sportsmen with additional paperwork. But with all the problems facing wildlife and the sport of hunting, sportsmen are going to have to take a more active role in the management and protection of game animals. This new program will help ensure the best possible hunting opportunities of doves, woodcock and other game birds for generations to come. The Game Commission is pleased to be a part of this introductory phase, and encourages all our waterfowl, dove and woodcock hunters to give it full support. — *Bob Mitchell*



TRAINING BIRD DOGS through the use of pigeons is a great way to bring them along quickly. Pigeons are easily obtained and kept, and they provide fantastic opportunities to work dogs over live birds. Pigeons can be used with all types of gun dogs, be they pointers, flushers or retrievers.

Pigeons: A Bird Dog's Best Friend

By John W. McGonigle

Photos by the Author

BURTON SPILLER, the great writer on all things pertaining to grouse and grouse hunting, said when asked how to make a good grouse dog, "Work your dog on about 500 grouse and you'll likely have yourself a pretty good grouse dog."

Another Way

Today's hunter doesn't enjoy access to as much land as he once did, and the dwindling amount of suitable habitat has decreased some small game populations. The average hunting dog will be long dead before it sees 500 game

birds. But the wisdom of Spiller's words cannot be denied, so there must be another way to give your dog the experience it needs.

Pigeons are the ideal game bird replacement for dog training. They are accessible, inexpensive, easily kept and easy to work with. Most importantly, they give off good scent and are strong flyers. Finally, they can be used with all types of gun dogs, be they pointers, flushers or retrievers.

Most areas, urban and rural, have an available source of pigeons. Many cities have so many of the birds that pest con-



This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

trol firms are utilized to reduce their numbers. These firms willingly sell the pigeons to boost their profits.

Highway interchanges often provide excellent roosting areas for pigeons under their network of bridges. Pigeons can be trapped there by the individual willing to expend the effort.

Youngsters on farms can often be relied upon to watch pigeon traps set in or around barns for a modest fee.

Varying Prices

Finally, farm auctions or animal brokers frequently sell pigeons. Prices vary, but in southeastern Pennsylvania birds usually can be purchased for \$1.75 to \$2.25 a piece. Occasionally they will be more expensive. In any case, pigeons are considerably cheaper than pheasant, quail, chukar or mallards.

Keeping pigeons on a small scale is easy. Large numbers of birds kept for a dog training club require more care, but are still easily managed. Pigeon food can be obtained at feed stores, as

can the grit necessary to help the bird's digestive process. Pigeons also require a regular water supply.

The real beauty of working with pigeons is the ease with which they can be handled. A small crate or pigeon carrier and a modified upland hunting vest are all that's required. Use a front loading vest with the sides sewn tight to keep the pigeons from escaping. With the addition of Velcro strips to keep the front openings closed, you have the perfect pigeon planting/dog training vest.

It is fairly simple to place pigeons in appropriate cover, which will give a dog experience in working birds under controlled conditions. Grasp the pigeon across its back in one hand with both wings pinned to its sides. For best control, hook the index finger over the leading edge of one wing. Using a close, circular motion, spin the pigeon until it relaxes. The spinning motion dizzies the pigeon, just as a child twirling in circles will become dizzy and disoriented.

The pigeon is ready to be planted for the dog when it can no longer hold its head upright.

Once the pigeon is dizzied, simply place it on the ground in cover thick enough that the dog is forced to locate it by scent rather than sight. Be careful not to use cover so thick that a flushing dog consistently catches the bird.

Don't be too concerned if at first the pigeons you plant fly off without being flushed or, conversely, are picked up by the dog. While the dizzying and planting process is not difficult, it does take time to master. Even experienced trainers occasionally lose birds or have them picked up.

Planted pigeons will stay put for five to 15 minutes, allowing you to plant one or several birds, return to your vehicle for your dog, and work him back into the birds.

Another method of planting pigeons involves the use of a pigeon harness which restrains the pigeon's wings, making it unable to fly. The bird can walk around in cover, leaving scent for

PLANTED PIGEONS will stay put for five to 15 minutes, allowing the trainer to plant one or more birds, return to get the dog, and then work back over the birds. A harness can also be used for planting pigeons.

the dog, but remains grounded, so it can be re-used. Harnesses for pigeons are available from several of the catalog companies specializing in gun dog training equipment.

It is best to work a young dog upwind (wind in your face) toward the bird. As he learns to use and trust his nose, the initial wind direction becomes less important and as training progresses that factor should be varied.

The next step, once the dog "makes" or scents the bird, depends on the breed and what you're trying to accomplish. Many pointing dog trainers don't allow their dogs to retrieve shot birds, believing that retrieving fosters breaking or chasing, at the flush or shot. Pointing breeds may be styled up on pigeons, and taught to remain steady at the flush and on the shot.

Flushing and retriever breeds, on the other hand, are expected to retrieve downed game, making them an invaluable conservation tool as well as bird finder and companion. Trainers of these breeds will frequently bring someone along to shoot the pigeons when they flush. In that way they eliminate dividing their concentration between working the dog and trying to shoot the bird. Steadying a dog takes all your concentration, and a dog quickly notes your lack of attention and fre-



quently "breaks," hindering the training process.

Regardless of your gun dog's breed, working pigeons in the off season is a great way to take your bird finding companion from kindergarten to graduate school in a short period of time. It's also a great way to extend your dog training time from a month or so to the entire year.

Finally, working with pigeons is fun for both you and the dog. It keeps his interest up and teaches him his job more quickly. It makes you a better hunter and dog handler because you learn to "read" your dog's behavior, allowing you to be ready for the flush of the bird.

Yes, pigeons are a bird dog's best friend. Maybe they should be yours, too.

Cover Painting By Marie Girio Brummett

Shortening days, changing leaves and cooler (perhaps) temperatures this month signal summer's passing and fall's approach. For a hunter, there's still plenty of opportunities for spending days afield with a tack-driving varmint rig in search of woodchucks, but for many of us, our thoughts and eyes are turning toward scatterguns and mourning doves. Flocks are beginning to gather now, and large numbers of the birds may be seen foraging in grain fields, perching atop utility lines and converging on major roosting areas. Do your scouting this month and you'll have some fast and furious shooting come September. If you're still not convinced dove hunting's for you, take a look at Bob Sopchick's "A Day in the Dove Fields," beginning on page 16.



Silver Anniversary Buck

By Gerald O. Zeiber

IF PATIENCE is a virtue, I'm ready for knighthood—if not sainthood. Since 1961 my “buck luck” has been like a one-way street—the wrong way. I've taken deer over the years, but always a doe or button buck. People have told me that antlers make weak soup anyway. But, as they say, “That ain't the point; it's the principle of the thing.” Besides, who wants soup on his wall?

Throughout my hunting experience I've learned some lessons the hard way and paid “dearly” for my mistakes. One day in 1967 I strolled into the woods about a mile from where I lived. The morning was bright and sunny, and unusually warm for the middle of the first week. Crunching through the fallen leaves on the trail, I figured I'd pick a stand and get ready for the long wait.

On my leisurely walk, I heard a squirrel scamper out ahead of me. You can imagine my shock when the squirrel turned out to be a huge 8-pointer—count 'em, eight—which left me fumbling to get my rifle unslung while he turned on the afterburner. I had no chance for a shot.

Lesson one. Rifle slings should be used to carry your rifle before shooting hours, after shooting hours, or after you've gotten your deer. At other times, keep your rifle in your hands if you want to fill the blank space on your den wall.

Throughout the '70s, a group of us hunted Blue Mountain on SGL 106 between Port Clinton, Hawk Mountain and Eckville. It's wild and woolly country up there. The area we hunted was almost two miles from any parking—far enough that after dragging out two doe one year, we built a rickshaw-type carrier to transport the next ones we killed.

In 1976 we carried walkie-talkies. The idea was to check in with each

other every hour or after any shots were fired. One morning, after standing in a foggy mist on the mountaintop for several hours, I became fidgety. I finally decided to drop over the side and work my way down to the valley below. By the time I got there, I was hot and tired, and I parked myself on a convenient log while I checked in on the radio.

With the rifle on my lap, I proceeded to call the others. The CB traffic sounded like a Turkish bazaar. Faster than you can say “Breaker, one-nine,” I caught movement 20 yards to my left. I dropped the squawk box and raised my rifle as a 4-pointer slowly eased away. But to my surprise the body heat raised from plodding down the hill had fogged the cold lens of my scope. Watching the buck bound away, I wiped the rear lens and tried again. The front was fogged too. It was like trying to see through wax paper. One shot was the best I could finally manage. A clear miss.

Lesson two. Radios are just dandy in 18-wheelers, but they have no place in the woods. Give your walkie-talkies to your kids to play commando in the back yard. One moment's distraction while hunting can cost you the farm.

In 1977 I took a shot at a 3-pointer at about 80 yards and couldn't believe I'd missed. My hunting partners were within shouting distance, but I decided to check it out alone. I found tracks but no blood in the two inches of snow. For the next hour, back on my stand, I became increasingly perplexed about the miss. I should have connected. I finally hollered for one of my partners when I could no longer accept the situation.

I stayed put and directed him to where I had shot. Sure enough—blood—not much, but a trail. I must have been looking at the wrong tracks on my solo survey. We snaked through thick laurel, and over and around huge rocks, following the meager evidence.

We found three spots where he'd lain down. Suddenly, we heard one shot, about 200 yards off. Another hunter had killed the buck.

Lesson three. What you see in the woods from one spot may look entirely different from another vantage point. Your eyes can easily fool you. When a deer doesn't drop within view, get help to mark the spot where you shot. If alone, calm down, note reference points, and work a large, systematic and meticulous pattern to search for sign. It is one of the hunter's greatest responsibilities to follow up on wounded animals.

In 1982 I began hunting the Blue Marsh area, having bought property adjoining the Corps of Engineers preserve. On opening day it rained steadily. By 11 o'clock my clothing was soaked and I decided to head for the car. Seventy yards from the road, 10 yards to my right, a buck popped up like a jack-in-the-box. I didn't have time to count points, but his rack was high and bone white. I had no trouble mounting the rifle and sliding the safety off, but the extra time required to flip up those

handy-dandy weather beater scope caps allowed the buck time enough to cross the trail in front of me. To complicate the situation, my scope was set at 4x—too high to pick a vital spot at such a close range. My only shot would be right toward the road and the houses beyond, and I could not take the shot.

Lesson four. When it's raining, scopes can be as much of a nuisance as they are a help when it's dry. A shotgun, using slugs—even a single-shot like the one I now use in the rain—with a receiver mounted peep sight, has all the accuracy you need for the close shooting you can expect on such a day. And I can clean my dripping single slugger in five minutes if I haven't fired it.

Lesson five. Iron sights may be just the ticket for the thicket. Scopes are not such a hot setup for close shooting. If you're poking through laurel patches or pushing dense cover like honeysuckle, your longest shot may be only 15 or 20 yards. In this situation a scope, unless it's extremely low-power, is a disadvantage. A ghost-ring aperture system, one that writers like Finn Agaard prefer, allows fast, unrestricted sighting. Choose the firearm/sighting combo to match the circumstances you'll encounter on each hunt.

Assuming you're a decent shot, and you're in the right place at the right time, the rest should be easy. But I know better. I can't count how many times just plain bad luck has kept me from filling out my tag.

In 1972, three of us met for lunch at the log my brother had warmed all morning. We carried on like Moe, Larry and Curley as we wolfed down our sandwiches. Suddenly, from up the hill, came a string of shots. Whatever it was, it was getting closer. Still sitting on the log, I had my rifle up and ready when the spike appeared. I aligned the crosshairs and began to squeeze the trigger.

The roar was deafening—not from

I HEARD a squirrel scamper out ahead of me, and I was completely shocked when it turned out to be an 8-point buck. Lesson one: Rifle slings should be used only after shooting time or after you've killed a buck.



my gun, but from my brother's. While the deer was quartering toward us, we all lined up on it and were ready to shoot. The span of less than one second meant the difference between my first buck and my brother's.

On the first Saturday in 1976, we parked at the Port Clinton fire tower and walked out toward the Pinnacle long before first light, pulling our rickshaw in confident anticipation. After no contact on the top flats all morning, we moved down to the valley at lunch—the same valley where I missed the 4-pointer the previous Monday because of the fogged scope. We took stands until about two o'clock, when one of our group got antsy and announced that he wanted to still hunt rather than stand. He said he would work his way back to the car and drive around the mountain to Eckville where we could meet him at quitting time.

Since the buggy was still up on the mountaintop, someone had to retrieve it. Of course, I drew the short straw. As I returned to the group and parked our contrivance at the side of the trail, the boom of a rifle greeted me. My brother, waiting for my return, dropped a spike buck right where I was posted before I went for the cart.

In 1978, we trudged up the hill from the Eckville side. The hike takes more than an hour, and we left plenty early. Also, with an ice crust on the snow, we wanted to be in position at least 30 minutes before shooting time to eliminate last-minute commotion around our stands. We soon were settled, confident we would see deer when the season began.

Right on the opening minute another hunter crunched in along our line, negating our early bird caution. He took a position about a hundred yards above us, between my brother and me. Sure enough, about seven o'clock I heard a group of deer moving toward us. Fol-

TEN YARDS to my right, a buck popped up like a jack-in-the-box. I didn't have time to count points, but his rack was high and bone white. By the time I flipped off the scope caps, the buck had crossed the trail.

lowing a single blast from above, five doe loped right past me. The 6-pointer with them had been ambushed by the Johnny-come-lately who'd bumbled in a few minutes earlier.

In 1980, a small 4-pointer gave me a standing shot, slightly uphill, at about 70 yards. Although the brush was about two feet high, I had no trouble lining up an easy shoulder shot from a kneeling position. The deer dropped straight down as if the earth had opened up. I leisurely gathered my goodies and headed up the hill. I found no deer, no blood, no hair, no trace. I looked around for five minutes, scratching my head and wondering what happened. A shot from across the trail brought me back to reality. Walking over, I found one of our gang tagging his first buck—a buck whose antlers I recognized. The deer must have crawled on his belly like a reptile, because the cover was sparse enough for me to watch him walk or run. All I could figure was that my bullet deflected off a twig; I'm a better marksman than to have blown such a plum shot.

Lesson six. The most important lesson, the most inflexible lesson, the one that sums up this sport. The only sure thing about deer hunting is that there is no sure thing. You can read every article published and follow all the experts' advice. You increase the odds in your favor by arduous preparation and good woodsmanship. But as soon as the season begins, Lady Luck may give you the fast shuffle. So many times you think you control the situation when that fickle woman will deal you one off the bottom. It's humbling as well as frustrating. I should know—25 years is a



long time to go without shooting a buck.

December 1, 1986. 7:15 a.m. The sun reflected off his antlers like a halo and shined through the trees as he approached. I let him trot down the hill into the gully to my left. He stopped at the bottom, 60 yards away. He never saw me. This was it. He was mine. My shot sent him up the hill through the brush. He seemed unaffected, but he was moving too fast for me to get off another round. I caught only glimpses of him. If he would just stop again, maybe I'd get another chance. From the hilltop came a shot, and then another, then thrashing, then silence. Not again, I thought.

To this day, I don't know if I hit him, but I do know I didn't stop him, and someone else tagged him and took his six points away. I felt like quitting. I reconstructed the incident in numbed disbelief. It was an easy shot. I was calm. I took my time. I didn't flinch. What could have happened? It could only have been my luck again. The next hour seemed like an eternity.

Suddenly, at 8:30, my world went into a time warp. Another buck, with gleaming antlers, came from the same direction. He stopped at the same place the 6-point had, giving me another chance. I aimed and fired. This time he went down. I had him. I could see my uncle from my stand. I gave him a thumbs-up sign.

But as I started toward the buck he got up and started moving again. I was going to lose him. I fired again, and he went down a second time. Up again. Shoot again. Down again. A 150 grain Nosler Partition bullet traveling at 2700 feet per second isn't exactly on the order of a bee sting, but I just couldn't seem to anchor him. He kept moving down the gully in 20-yard lunges. After my fourth shot he lay still.

Only as I carefully approached him did I begin to comprehend the magnificence of this whitetail. He was huge—a 10-pointer—the bull of the woods, with a 19-inch spread and a 43-inch chest. The lady holding the cards had finally

dealt me both trump aces. Later, with the tape provided by the Game Commission some years back, I computed his weight to be 234 pounds on the hoof. His rack was thick and high and incredible. As I touched him I knew he was surely the buck of a lifetime.

The crowd gathered quickly: my uncle and cousin, the two fellows who had originally pushed him out of the field above the woods, and another hunter from the hillside opposite my stand. We looked at his scarred antlers, and the point broken off to two inches from sparring. We noted the three well-placed shots. I had missed but once. If this was not the king of the mountain, he was certainly the crown prince.

The what ifs and if only's of so many days in rain, snow, sleet, fog, wind and bitter cold swirled around and around in my mind and finally came into focus on the now-still creature at my feet. In my 25th year of deer hunting, my quest was finally at an end. I had my buck.

Robert Ruark once wrote, in *Use Enough Gun*, that the death of an animal at the hands of a hunter is not a dreadful thing, as opposed to the lingering death which is the natural destiny of all wild creatures. He believed that if you respected the animal, and took him on his own terms, and froze the entire day in your memory, then you have done more than kill an animal. "You have lent immortality to a beast you have killed because you loved him and wanted him forever so you could always recapture the day."

As I look at him now, on my wall, I do remember the day. And I know he was worth the wait. If I never took another, our relationship would still be unique in this world. I think he also turned the corner for me, because the following year I took a fine 7-pointer from the same stand on opening day. With two handsome trophies to my credit, some might think it's time for me to pursue other interests. But I figure I've already invested so much time in this business of whitetails that I might as well continue. Besides, I want to see what my golden anniversary holds in store.



HUMAN ENCROACHMENT on wetland habitats is rapidly destroying these vital areas, which are host to a number of endangered and threatened species. To combat the decline, the Game Commission, as part of a larger, international plan, has dedicated time, money and manpower to saving and enhancing wetlands.

A new initiative by the Commission takes the high ground to prevent the loss of wetlands and the wildlife they support.

The Pennsylvania Waterfowl Management Plan

By Joe Kosack
PGC Information Specialist

IT'S NO SECRET; waterfowl populations across the continent are virtually lower than they've ever been before, largely because the wetland habitats these animals need are rapidly being destroyed. Anxious to reverse this trend, the Game Commission has joined the North American Waterfowl Management Plan (NAWMP), an international initiative to protect and enhance the continent's dwindling wetlands—the chief breeding, feeding and

resting areas for waterfowl and a multitude of other species.

The NAWMP establishes population goals for waterfowl species through the year 2000 and identifies wetland preservation and management needs for specific regions of the continent. The initiative was signed by the U.S. and Canada in 1986; Mexico joined two years later. The plan calls for the preservation and restoration of five million wetland acres by the year 2000.



Working within the overall goals of the NAWMP, the Game Commission has developed and implemented the Pennsylvania Waterfowl Management Plan to address areas of concern here. Through the plan existing wetlands will be protected and enhanced through land purchases and agreements with private parties, and new habitats will be created. It's designed to improve waterfowl populations in the commonwealth and the Atlantic Flyway, a major waterfowl migration route between northern breeding and southern wintering areas.

Wetland Decline

The U.S. Department of Interior estimates the lower 48 states lost 116 million acres of wetlands in the last 200 years, a 53 percent decline from an original total of 221 million acres. In Pennsylvania during the same period, about 628,000 of an original 1.1 million wetland acres have been filled or drained, according to Interior's *Wetlands Losses in the United States, 1780s to 1980s*.

In light of those losses, protecting and enhancing the state's remaining wetland acreage has become a high

ASIDE FROM PROVIDING food and cover for a host of wildlife, wetlands also perform vital functions such as reducing flooding through water absorption and storage, and purifying contaminated water.

priority for the Commission and other natural resource agencies and conservation organizations.

For centuries, people considered wetlands as places of little value that needed to be drained or filled. Many viewed wetlands as being dangerous, the home of disease-carrying mosquitoes and poisonous snakes. Many local, state and federal agencies agreed, and provided financial assistance programs that encouraged landowners to drain or fill swamps, bogs and soggy meadows. Wetlands were destroyed by the thousands; cropland, residential developments, shopping malls and industrial complexes took their place.

Today, however, we've come to understand and appreciate the real importance of wetlands. We know they reduce flooding through water storage and absorption, and they purify water by removing pollutants.

Wetlands are important habitat for more than just waterfowl. An array of wildlife, from furbearers and wading birds to reptiles and amphibians, depends on them. Wetlands provide critical habitat for the bald eagle, osprey, bog turtle, American and least bitterns, and other endangered animals and plants.

Population goals for 32 species of ducks, geese and swans have been established by the NAWMP. Essentially, the goals represent the continental populations of waterfowl present in the 1970s. For ducks, the plan calls for programs that will double the breeding duck population from its 1988 level to 66 million by the year 2000. The larger breeder population would increase the number of ducks in fall migrations to about 100 million, up from 66 million in 1988. The plan also calls for maintaining an overwintering goose population of more than six million.

The international plan also defines specific population goals for mallards,

GOVERNMENTS ANNUALLY spend millions on waterfowl programs, but it's not enough. Outdoorsmen and women can help by buying federal and state duck stamps, and by supporting conservation groups.

black ducks and pintails. Those three species have recently suffered substantial declines in certain areas of the continent, and their ability to rebound appears largely dependent on the plan's success.

To achieve its objectives, NAWMP has a couple major hurdles to clear—namely funding and, in some cases, a lack of manpower. The cost of performing necessary tasks greatly exceeds the amount of money the U.S. Fish & Wildlife Service, Canadian Wildlife Service and state wildlife agencies are able to allocate for waterfowl management.

Each year federal, state and provincial governments spend millions on waterfowl programs, but that funding pales in comparison to the monies needed to carry out NAWMP.

Both the international and state plans must rely on substantial contributions from conservation organizations such as Ducks Unlimited, Wildlife Habitat Canada and The Nature Conservancy. Individual donations, regardless of size, are also important. Outdoorsmen and women can buy federal and Pennsylvania duck stamps, and they can contribute to the aforementioned groups and others like them. Donations to local conservation organizations enable them to buy, and ultimately protect, nearby marshes. There are many ways sportsmen can get involved, and NAWMP's success depends on just that type of grass roots commitment.

NAWMP concentrates on several geographic regions. These regions, called joint venture areas, are territories where federal, state and local agencies have agreed to work with landowners and private organizations.

Portions of two joint venture areas are within Pennsylvania's borders: the Lower Great Lakes/St. Lawrence Basin Joint Venture, in our northwestern counties; and the Atlantic Coast Joint



Venture, which covers the eastern third of the state.

The PWMP is designed to protect the state's remaining wetlands, 77 percent of which are forested or scrub/shrub types. Critically important are our 70,000 acres of emergent wetlands, which the plan will safeguard from human development. About 20 percent of our wetlands are located in northwestern counties; an almost equal amount is found in the northeast.

No. 1 Priority

In 1985, prior to the launching of NAWMP, the Commission made wetlands acquisition its No. 1 priority. That year the agency also bought its aquatic vegetation cutter with financial aid from Ducks Unlimited's Matching Aid to Restore States Habitat (MARSH) program.

DU contributed \$51,671 in MARSH monies toward the cutter's purchase price of \$141,854. Funds from the sale of state duck stamps provided the remainder.

Since then the cutter has seen extensive use, primarily in vegetation-choked wetlands of northwestern counties. Over the past five years, the floating mower has improved more than 425 acres of marsh. It's an invaluable tool, one that will help accomplish the agency's waterfowl habitat enhancement goals under the new initiative.

The PWMP is designed to improve local populations of mallards and wood and black ducks. It will also greatly



THE STATE PLAN'S goal is to protect, create or enhance at least 170,000 wetland acres by century's end. The Commission made wetlands acquisitions a top priority in 1985, one year before NAWMP was established.

To accomplish the plan's habitat preservation goals, the Commission will work closely with state DU chapters, The Nature Conservancy, Seneca Highlands Conservancy, The Wildlands Conservancy, and the French and Pickering Conservation Trust. Watershed organizations, municipal governments and local conservation clubs will also help purchase wetlands, obtain conservation easements or cooperative agreements to protect private wetlands, and establish long-term leases with landowners to manage wetlands.

Since the NAWMP was launched in 1986, the Commission, with the assistance of conservation organizations, has purchased more than 7,600 wetland acres in the state. The purchases include Silkman's Swamp (SGL 310), Blue Ridge (SGL 312), Benson's Swamp (SGL 306) and Tamarak Swamp (SGL 197). The agency also exchanged some land for Brown's, White's and Bressler islands on the Susquehanna River.

In addition, the Commission recently completed the Hartstown Marsh Project (also known as the Howard Reynolds Memorial Project) on SGL 214 in Crawford County. Through this project a leaking dam was repaired in order to retain water in the marsh behind it.

The Commission makes frequent use of funds available through the MARSH program to acquire wetland properties. For example, last year DU contributed more than half of the \$267,642 the agency paid for the 892-acre Benson's Swamp tract. It also provided \$100,000 of the \$525,000 the Commission paid for Silkman's Swamp's 1,137 acres, purchased last year.

Work outlined in the PWMP for the Lower Great Lakes/St. Lawrence Basin Joint Venture Area targets state game lands, the Erie National Wildlife Refuge, the Allegheny National Forest and private lands. The projects planned for the four focus areas in that region will

benefit migrating and wintering waterfowl. Under the plan, waterfowl hunting regulations will continue to be structured for sustained harvests of specific species of ducks and geese. This will ensure sufficient numbers of waterfowl are always available for breeding stock, and for birdwatchers, photographers and other recreationists. The agency's banding and survey programs will continue to measure population dynamics to help monitor waterfowl trends.

PWMP's goal is to protect, create or enhance at least 170,000 wetland acres by century's end. Of this total, a minimum of 88,000 acres are being targeted for protection and 70,000 acres for enhancement. The remaining 12,000 specified in the plan will be created through habitat manipulations. The work is to be performed in four focus areas established in the Lower Great Lakes/St. Lawrence Basin Joint Venture and eight focus areas in the Atlantic Coast Joint Venture.

PWMP focus areas are prime sites for breeding, migrating and wintering waterfowl, and generally include wetlands and neighboring upland habitats. The areas are already heavily used by waterfowl.

take place in Butler, Crawford, Elk, Erie, Forest, McKean, Mercer and Warren counties. These efforts are anticipated to protect 31,000 acres of wetlands, create 11,000 acres of new wetlands and enhance 26,000 existing acres.

In the Atlantic Coast Joint Venture Area, work is targeted for four focus areas in southern counties and four in northern counties. In the south, the Susquehanna River lowlands on both sides of the river from Sunbury to the Maryland state line require the most work and immediate attention. In this focus area, 8,300 acres have been identified for protection and 2,500 acres for enhancement.

Last year DER agreed that the Commission would manage wildlife on all Susquehanna River islands south of Williamsport that aren't warranted or patented. This arrangement will greatly help the agency attain the plan's habitat goals in the river's lowlands. Waterfowl management priorities on these islands will be established when the inventory process is complete.

Other focus areas in southern counties include the Middle Creek Wildlife Management Area and Ontelaunee Reservoir Corridor in Berks, Lancaster and Lebanon counties; Chester County's Marsh Creek wetlands; and reservoirs and small wetlands scattered throughout Bucks and Montgomery counties.

In northern Pennsylvania, the plan identifies the Tobyhanna-Goldsboro focus area in Lackawanna, Monroe and Wayne counties as a high priority area. This focus area includes the agency's Silkman's Swamp and Blue Ridge acquisitions.

Other northern focus areas include SGLs 13, 57 and 66 in Luzerne, Sullivan and Wyoming counties—a collective total of 94,000 acres; SGL 180, a 12,000-acre tract in Pike County's pothole country; and that portion of Wayne County not included in the Tobyhanna-Goldsboro focus area. Wayne County has a high density of beaver ponds and other wetlands, and

has historically maintained good breeding populations of mallards, woodies and black ducks.

The Commission plans to use a variety of methods to enhance and recover wetlands to meet its waterfowl management goals. A good example is the Streambank Fencing Program. Since it began in 1987, 53 miles of waterways on 152 farms, mostly in the Susquehanna River Basin, have been protected by fences that keep livestock off the banks and out of the creeks. Trees and shrubs are also planted on the banks to reduce or eliminate erosion and provide wildlife food and cover.

The agency's beaver management plan, begun last year, is designed to maintain or establish stable populations of beavers in suitable habitat across the state. Because beaver dams are extensively used by many waterfowl species, the management program works in concert with PWMP's goals. Beavers, of course, perform valuable habitat enhancement work for free.

So far, results of the Commission's efforts are encouraging. In recent years, the numbers of breeding and wintering waterfowl here have increased considerably. Today, Pennsylvania ranks seventh in duck harvest and third in Canada goose harvest among the 17 states in the Atlantic Flyway. It also places fifth in wintering Canada goose populations and 11th in wintering duck populations.

Waterfowl populations have responded well to the Commission's ongoing habitat management programs, and it seems likely that duck and goose populations will continue to prosper here. So, too, will species of special concern that depend upon wetlands.

Much remains to be accomplished, both in Pennsylvania and across North America, before the goals of the NAWMP are ultimately achieved. But thanks to the cooperation of the federal and state governments and the wholehearted support of hunters and allied conservationists, the future of the NAWMP—and waterfowl—looks bright.

A Day In The Dove Fields

From the Sketchbook of
Bob Sopchick



• SOUTHERN YORK COUNTY, SEPT. 3

MANY HUNTERS CONSIDER DOVE SEASON A TRADITIONAL WARM-UP FOR THE MORE "SERIOUS" WINGSHOOTING OF FALL. THEY AREN'T CONCERNED WITH THE NUMBER OF BIRDS BAGGED OR SHELLS EXPENDED- THE SPORT IS JUST A RELAXING WAY TO SHAKE THE SUMMER DOLDRUMS.

FOR SERIOUS SCATTERGUNNERS, THOUGH, DOVE SEASON IS THE FOCAL POINT OF THE YEAR. THROUGHOUT THE SUMMER THEY FINE-TUNE THEIR SHOOTING TECHNIQUES ON CLAYBIRDS, KNOWING THAT THE ERRATIC FLIGHTS OF DOVES WILL PROVIDE THE MOST CHALLENGING TEST TO THEIR HARD-EARNED SHOTGUNNING SKILLS.

FOR THIS HUNTER, HOWEVER, THE OPENER FOR DOVES IS THE DAY I REGAIN MY FIELD EYES. AFTER A LONG SUMMER AT THE DRAWING BOARD, WHERE MY WORLD IS TWO DIMENSIONAL AND DISTANCE IS MEASURED IN FRACTIONS OF AN INCH, I AM SUDDENLY FLUNG INTO THE DEEP, 3-D SPACES OF THE DOVE FIELDS. AT FIRST THE SENSATION IS A HEADY ONE, BUT AFTER A FEW MISSES AND KILLS I AM ONCE AGAIN ABLE TO ESTIMATE DISTANCE AND JUDGE SPEED.

AS WITH OTHER TYPES OF HUNTING, THE PERIPHERAL ELEMENTS OF THE HUNT STICK WITH ME LONGER AND ARE RECALLED WITH GREATER CLARITY THAN THE BEST SHOTS OF THE DAY. AS I STAND NEAR THE RIPENING CORN IN THE INTENSE HEAT OF WANING SUMMER, I CAN SENSE THE SUBTLE CUES OF AUTUMN'S APPROACH. FIRST, THE LIGHT HAS CHANGED...





EYES ON THE SKIES -
DOVE HUNTING IS A SPORT OF
MOVING SILHOUETTES; EACH
FLYING INSECT AND PASSING
BIRD REQUIRES A QUICK
GLANCE FOR IDENTIFICATION AS
DOVES MAY SUDDENLY APPEAR
FROM ANY DIRECTION AT ANY
TIME. HUNTERS MUST BE ABLE TO
IMMEDIATELY DISTINGUISH A DOVE
SILHOUETTE FROM THOSE OF BARN
SWALLOWS, ROBINS, KESTRELS AND
OTHER BIRDS OF THE FIELD.



• I ALWAYS SEE A KESTREL OR
TWO WHEN HUNTING HERE. THE
SPARROW HAWK, OUR SMALLEST
FALCON, PREYS ON MICE,
GRASSHOPPERS AND SMALL SNAKES.



DOVE SILHOUETTES

• BARN SWALLOWS FOLLOW US TO
AND FROM OUR STANDS, CAPTURING
THE FLYING INSECTS WE LEAVE
IN OUR WAKE. THE BEAMS OF
THE DILAPIDATED BARN NEARBY
ARE PLASTERED WITH THEIR
NESTS. IT WOULD BE HARD TO
FIND A BIRD WITH A MORE
ELEGANT SILHOUETTE - THE DEEPLY
FORKED TAIL ENHANCES THE
LOOK OF SPEED AND GRACE.

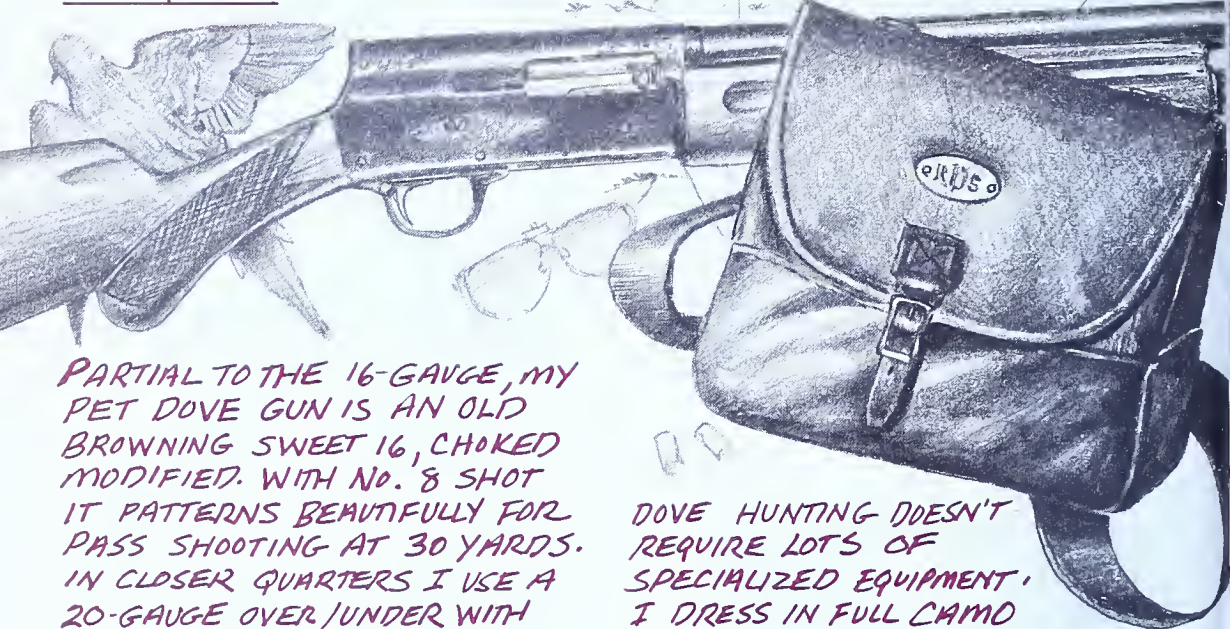


BARN SWALLOWS



• I ENJOY THE FLIGHT OF THE CATTLE EGRETS LATE IN THE AFTERNOON -
THEIR WHITE PLUMAGE CAN BE SEEN FROM GREAT DISTANCES. AS
THEY PASS DIRECTLY THROUGH THE RED RAYS OF THE SETTING SUN
THEY GLOW LIKE DYING EMBERS, THEN FADE QUICKLY AS
THEY FLY TO ROOST IN THE SWAMP.

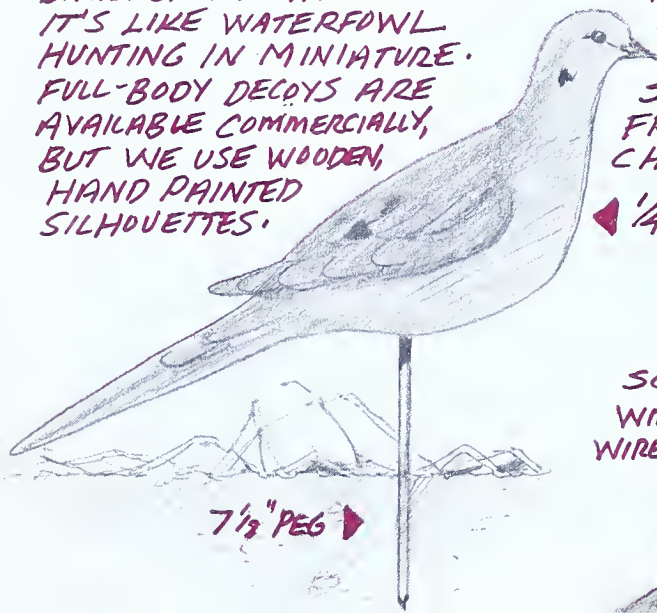
GUNS & GEAR:



PARTIAL TO THE 16-GAUGE, MY PET DOVE GUN IS AN OLD BROWNING SWEET 16, CHOKED MODIFIED. WITH NO. 8 SHOT IT PATTERNS BEAUTIFULLY FOR PASS SHOOTING AT 30 YARDS. IN CLOSER QUARTERS I USE A 20-GAUGE OVER/UNDER WITH IMPROVED CYLINDER & SKEET TUBES. NO MATTER WHAT YOU SHOOT, MAKE IT A POINT THIS SEASON TO WEAR SOME EAR PROTECTION - DOVE HUNTING IS A VISUAL SPORT WITH FIVE SHOTS PER BIRD ON AVERAGE. I ALSO WEAR TOP QUALITY EYE PROTECTION. IT'S ALSO A GOOD IDEA TO WEAR A BLAZE ORANGE HAT WHEN SEARCHING FOR A DOWNED BIRD OR WHEN PASSING BY OTHER HUNTERS.

DOVE HUNTING DOESN'T REQUIRE LOTS OF SPECIALIZED EQUIPMENT. I DRESS IN FULL CAMO AND CLIP A SHOOTER'S TOWEL TO MY BELT. I CARRY A SHOOTER'S STOOL THAT HOLDS SOFT DRINKS, WATER, BINOCs AND LUNCH. I USUALLY WEAR A MESH VEST, BUT CARRY ALL SHELLS IN A GUNNER'S BAG - MAKE SURE TO PICK UP EVERY EMPTY AND PUT IT IN THE BAG. I PUT MY DOVES INTO A MESH SACK - IT KEEPS THE FLIES OFF AND THE AIR CIRCULATING.

DECOYS ADD ANOTHER DIMENSION TO THE SPORT - IT'S LIKE WATERFOWL HUNTING IN MINIATURE. FULL-BODY DECOYS ARE AVAILABLE COMMERCIALY, BUT WE USE WOODEN, HAND PAINTED SILHOUETTES.



7 1/2" PEG

THERE'S NOTHING COMPLICATED ABOUT A DECOY SPREAD - JUST SET THEM OUT WHERE THE BIRDS CAN SEE THEM, OR HANG THEM FROM BARE LIMBS LIKE CHRISTMAS ORNAMENTS.

◀ 1/4" WOOD

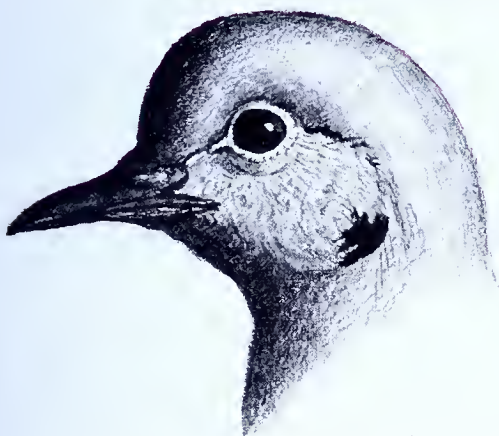
SCREW EYE WITH BENT WIRE HANGER.



THE HUNT: I WALK ALONG A NARROW, WEEDY STRIP SEPARATING TWO FIELDS WHEN SIX DOVES EXPLODE FROM A CLUMP OF FOXTAILS IN FRONT OF ME. THEIR SILVER WINGS AND WHITE TIPPED TAILFEATHERS FLASH AND GUNT LIKE SHARDS OF FLYING-GLASS FROM A SHATTERED WINDOW. I PICK OUT A RISING STRAIGHTAWAY AND DROP MY FIRST BIRD OF THE SEASON. UNLIKE A THROWN CLAY, WHICH PROGRESSIVELY LOSES SPEED AS IT RISES, THE SPEED OF A RISING DOVE INCREASES.



• A TEAL FLIES FASTER THAN A DOVE, BUT NO GAMEBIRD DIVES, JINKS AND STUTTER-STEPS BETTER.



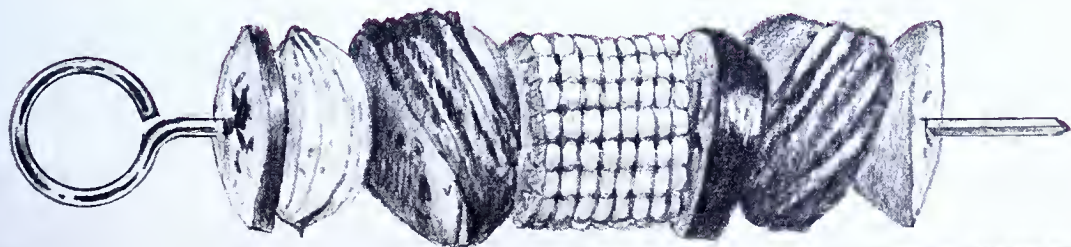
• HUNTERS UNDERESTIMATE THE ABILITY OF BIRDS TO DETECT MOVEMENT - DON'T MOVE UNTIL READY TO SHOOT.

TWO HOURS LATER I DROP BIRD 12, AN INCOMER, BY SWINGING UP THROUGH THE BODY AND BLACKING IT OUT WITH THE MUZZLE. I UNLOAD THE GUN AND SIT, EATING A SWEET, FALLEN PEACH. I TAKE A WATER-SOAKED BANDANA AND WIPE AWAY ITCHY WEED SEEDS STUCK TO MY ARMS AND NECK. THE SEEDS ARE THE REASON BIRDS CONGREGATE HERE, ALONG WITH SPILLED CORN, ROADSIDE GRIT, WATER IN THE PASTURE AND ROOSTS IN THE ORCHARD (WHICH IS OUT OF BOUNDS FOR SHOOTING.)



DON'T FIELD DRESS BIRDS UNTIL YOU GET HOME. SOME HUNTERS DRAG A COOLER INTO THE FIELD SO THEY CAN GET THEIR BIRDS ON ICE, BUT I'VE NEVER HAD A BIRD SPOIL ON EVEN THE HOTTEST DAYS. I DON'T PUT THEM IN A PLASTIC BAG, EITHER. I CLEAN THEM BY SPREADING A NEWSPAPER ON THE GROUND IN A WIND SHELTERED AREA. AS EACH SPREAD FILLS WITH FEATHERS

AND WINGS I SIMPLY TURN THE PAGE TO A CLEAN SPREAD. MY FAVORITE WAY TO PREPARE DOVES IS AS A SHISH KABB. I SKEWER THE MARINATED BREASTS ALONG WITH RED & GREEN PEPPERS, CORN ON THE COB PIECES, ONIONS & POTATOES. I COOK THEM ON THE GRILL ON COLD, LATE AUTUMN AFTERNOONS WHEN THE WARM DAYS OF LATE SUMMER SEEM SO LONG AGO, WHEN THE LIGHT BEGAN TO CHANGE...





Leonard Lee Rue II

INCREASED CROP DAMAGE from a rising deer herd prompted the Commission to institute a special antlerless hunt designed to provide relief for farmers. Following the 12-day January hunt, the agency polled participating landowners for their opinions.

The Extended Antlerless Deer Season . . .

What Were the Results?

By Robert C. Boyd
PGC Biometrician

LOCAL AREAS of high deer numbers and associated crop damage have always been considerations in Pennsylvania's deer management. And the Game Commission has long had liberal crop damage control programs and policies. The agency assists with the implementation of deer-proof fencing, for example, and qualifying farmers are allowed to remove depredating deer.

Recent high deer population levels, however, in combination with current economic pressures on agricultural producers have created a demand for

additional tools to help farmers alleviate crop losses caused by deer. Consequently, last January, a 12-day extension of the antlerless deer season was authorized exclusively on farms suffering excessive levels of crop damage. A total of 574 landowners, representing 635 farms in 52 counties, took advantage of this new program. Soon after the season we conducted a survey of participating farmers to evaluate this new initiative.

Each participating farmer was sent a short questionnaire. From it we wanted to determine the numbers of deer har-

vested, hunters and huntable acres; the landowner's opinions regarding hunter numbers, his satisfaction and reasons for dissatisfaction; reasons for too many deer; his willingness to participate again and suggestions for improvement; and whether neighboring landowners participated in the program.

After two mailings, 93 percent of the questionnaires were returned. Of the responses, 444 had complete information. These were the ones used in the following analysis.

Harvest—Based on the responses, we estimate that 2,674 deer were harvested by 35,181 hunters on 144,614 acres. Farms averaged 253 acres in size and an average of five deer was taken per farm. However, 24 percent of the respondents indicated no deer were taken on their properties.

Satisfaction—Of the respondents, 25 percent were either “satisfied” or “very satisfied” with the program (Table 1). For summary purposes, the 26 reasons given for dissatisfaction fit into three basic categories. Most respondents (74 percent) indicated “too few deer killed” as the reason for dissatisfaction; 23 percent mentioned “inconvenience.”

Participate Again—Despite the fairly low level of satisfaction, most respondents, by a factor of almost 2 to 1 (46 percent yes vs 23 percent no), indicated they would participate again if the program was offered. Another 28 percent indicated they might participate again, depending upon what program changes were made.

There were 37 suggestions for improvements, which were summarized into four categories. Ways of harvesting more deer, such as enrolling more land in the program (40 percent), and moving the season to coincide with the time crop damage is occurring, or when more deer are on the farm was cited by 24 percent of the respondents. For those suggesting more land be enrolled, their primary recommendations were to expand the huntable area to the

township level (34 percent), or to involve more neighboring land (26 percent). Only nine percent of the responses were related to minimizing inconveniences.

Hunter Density—Concentrating the attention of a large number of hunters on 635 farms was of some inconvenience for landowners. However, 60 percent of the landowners indicated the number of hunters was “about right,” only 22 percent indicated “too many,” and 11 percent indicated “not enough.” Obviously, most landowners know how much hunting pressure their farms can safely support, and regulated hunter numbers accordingly.

Neighbor Participation—The majority of respondents (76 percent) indicated that neighboring farms were not enrolled in the program. This will be an interesting statistic to watch as the program evolves because a major improvement to the program would be for more farmers to participate, particularly in those areas where the deer problem is most severe.

Why Too Many Deer?—The 16 reasons given for too many deer on farms were reduced to five broad categories for summary. An alarming finding of this survey, one that seriously impedes the effectiveness of any deer management program, is that 72 percent of the farmers felt the reason for the presence of too many deer on their properties was that adjacent or surrounding land was posted against hunting.

Variables related to Satisfaction and Willingness to Participate Again—Farmers with larger farms—more than 300 acres—were more satisfied with the special season than those with smaller farms. That's probably because there were more hunters on the larger farms and, therefore, more deer taken.

As for their willingness to participate again, those farmers who had a higher than average number of deer taken and fewer hunters on their properties were

more likely to again participate in such a season than those who had fewer deer and more hunters.

Benefits The 12-day extended antlerless deer season held exclusively on deer damaged farms resulted in

many benefits. While the average of five deer harvested per farm was less than what most landowners hoped, it must be remembered that after fawns would have been produced, the effect was that there are now 10 or so fewer

Table 1. Questions and responses, January 1991 extended antlerless deer season survey.*

Was the number of hunters about right, too many, or not enough?

<i>Percent</i>	<i>Response</i>
60%	About Right
22%	Too Many
11%	Not Enough
6%	No Response

How satisfied were you with the extended season on your farm?

<i>Percent</i>	<i>Response</i>
7%	Very Satisfied
18%	Satisfied
31%	Somewhat Less Than Satisfied
44%	Not Satisfied
1%	No Response

If somewhat less than satisfied, or not satisfied, please list reason(s).

<i>Percent</i>	<i>Response</i>
74%	Too Few Deer Killed
23%	Inconvenience
3%	Miscellaneous

Did any adjacent neighboring farms participate in this extended season?

<i>Percent</i>	<i>Response</i>
22%	Yes
76%	No
2%	Don't Know
1%	No Response

What is (are) the reason(s) for too many deer on your farm?

<i>Percent</i>	<i>Response</i>
72%	Surrounding Land Posted
13%	Too Few Deer Killed
11%	Adjacent to Game Land
3%	Better Feed on Farm
1%	Miscellaneous

Would you participate in this program if offered again?

<i>Percent</i>	<i>Response</i>
46%	Yes
26%	No
28%	Don't Know
1%	No Response

List any suggestions you have for improvements to this type of hunt.

<i>Percent</i>	<i>Response</i>
40%	Include More Land
24%	Move Season
9%	Minimize Inconveniences
28%	Solutions Other Than Extended Season

* Due to rounding, percentages may not total 100.

deer feeding on crops than there would have been without the special season.

Also, a summary from a similar survey conducted by the Pennsylvania Farmers Association indicates that the harvest during the extended season may have represented 40 percent of the total deer harvest on those farms. In addition, by identifying participating farms with signs before the regular firearms seasons, there probably was more hunting pressure attracted to the farms for the regular season, increasing harvests to above normal levels.

Finally, there were incidental benefits that cannot be discounted. We received numerous comments from landowners about how cordial and respectful the hunters were, and about the professionalism of our wildlife conservation officers. Also, the increased awareness among sportsmen and the public regarding the crop damage problem should serve to benefit agricultural producers and hunters throughout the state.

Improvements—The degree of dissatisfaction with the program certainly merits attention. The most common recommendations for improving the program involved enrolling more land, and shifting the season to a more effective time. Serious consideration has been given to implementing various program changes.

Doubling the season length would likely benefit, considering this year's harvest level was about half the level necessary to attain satisfaction. Also, shifting the season to a time when other hunting activities are occurring would help reduce a common concern that when hunters arrived, deer left and stayed off the farm. Disturbance on surrounding lands should help keep deer moving.

Hence, at its April meeting, the Commission expanded the extended antlerless deer season on participating farms to 32 days, from December 26, 1991 to January 25, 1992. The extended season will now be concurrent with the late small game, and the flint-

lock/late archery deer seasons.

Enrolling more neighbors into the program should enhance deer harvest, but it may not improve landowner satisfaction. During this survey, having a neighbor enrolled in the program did not influence satisfaction or willingness to participate again. Landowners appear to be basing their satisfaction primarily on the number of deer killed on their farm, not on the number harvested in the area.

High hunter densities were a negative factor for satisfaction and willingness to participate again. Although individual landowners have different opinions as to what the "right" number of hunters should be, a guideline based on survey results would be that hunter densities be restricted to no more than three hunters per 10 acres.

Challenges—Other challenges are apparent that this program may not be able to address. Posted land was cited as the primary reasons for too many deer. A program based on hunting will be ineffective if access to the deer cannot be attained. Also, smaller farms tended to be related to lower satisfaction ratings. The average farm size for respondents indicating 0 deer harvested was 156 acres, well below the average of 253 acres. And only 30 percent of farms exceeded 300 acres, the average farm size for satisfied participants. Special emphasis may be necessary to effectively deal with these problems.

In conclusion, we are grateful for the cooperation we received from landowners. A 93 percent response rate indicates a strong willingness by farmers to help us alleviate the deer damage problem.

The extended antlerless deer season is one of several tools the agency is providing farmers suffering from deer damage. And while the program has its drawbacks, it has proven to be valuable for many, and with further refinements and increased participation and familiarity, the program's value will surely increase.

Centerfire Squirrels

By Carl W. McCardell

IT WAS with a spring in my step that I walked toward the gun shop door. The evening autumn breeze felt good against my face and heightened my anticipation of the business at hand.

Ted and Dolly Wertz's Gun Shop, located between Glenmoore and Elverston, is not especially big. But the atmosphere makes up for its size.

A lot of area hunters and target shooters often congregate there to shoot—shoot the breeze, that is. This night was no exception.

I listened intently as the conversation went from one subject to another. The local deer herd was a major topic, as was the upcoming turkey season.

As the party began to break up I found myself thinking about squirrel hunting. No one had mentioned that sport, but I knew Ted would be more than happy to talk about it.

"Well, are you going to do any squirrel hunting?" I asked Ted after the last customer departed.

"I sure am," Ted replied. "Want to go along?"

I said I did, and asked him where he was going. Ted got a twinkle in his eyes and said, "I was thinking of taking you on a different sort of squirrel hunt. Let's go hunt them with centerfire rifles."

I thought he was joking, but I kept quiet and let him continue.

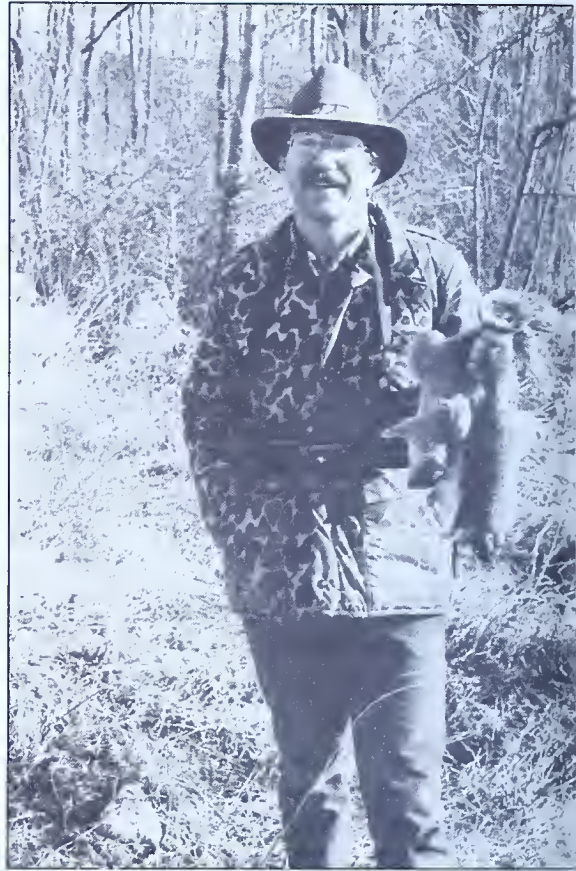
"We can use my 220 Swift and 17 Remington," Ted said.

As I stood there, laughing, I realized Ted was completely serious. "Come on," I said, while trying to regain my composure. "There won't be anything left to pick up after the smoke clears."

"I've done it for years," Ted assured me. "I use reduced loads."

Two weeks later, Ted and I were prowling his favorite piece of gray squirrel woods.

At this point, I must mention two im-



AFTER THEIR SQUIRREL outings with centerfire rifles and reduced loads, the author and his partner switched to Thompson/Center Contenders the next season. Both firearms added an exciting new dimension to hunting bushytails in the autumn forests and woodlots.

portant safety tips. First, using a rifle for squirrels always requires an extra measure of safety. A bullet certainly travels much farther than a load of bird-shot, and that means the hunter must be absolutely sure of what lies beyond his target and refrain from taking shots that don't offer adequate back stops.

Second, reducing loads for a varmint or deer cartridge requires extreme care. Loads reduced too far can be as dangerous as those above maximum. Always consult a reloading manual before attempting to load reduced rounds.

GUNSMITH Ted Wertz's skill with a Contender in 270 Ren brought him his fair share of squirrels. He made shots as far as 50 yards with the handgun. In this type of shooting, a solid rest is essential.

Ted dropped me off in a woodlot that impressed me as a terrific squirrel spot. He then headed for a second patch of trees located on the other side of a cornfield.

Finding a large oak to lean against, I settled down with the Remington Model 700 BDL in my lap. As with all of Ted's rifles, this one had received an expertly adjusted trigger, which contributed to it being a fine shooter. Of course, Ted knows what he's doing when it comes to making a crisp, safe trigger.

The temperature was in the high 20s, with just the right nip in the air to make it an ideal morning. The lack of wind allowed even the slightest sound to be heard in the crisp leaves.

Ted's rifle cracked in the distance just as I spotted a squirrel about 35 yards away. Unable to get a clean shot, I waited for the gray to come into the open again.

Ted's rifle cracked again; I knew he had two squirrels in his possession.

Finally, I glimpsed my intended quarry for a second time. He was moving slowly as he searched for acorns.

The squirrel kept disappearing from view. He would scamper for about five or 10 feet, then suddenly stop. Rooting in the leaves as a dog digs in the dirt, he pulled up at least three acorns.

I was able to align the crosshairs on the squirrel's ear when he stopped. Just as I squeezed the trigger he leaped forward.

He froze in his tracks. I worked the bolt but he saw me before I could take another shot.

The 17 Remington's report wasn't overly loud, and the recoil with the reduced loads was imperceptible—as Ted had promised.

"Oh well," I said almost aloud, "another one will be along soon." Just that quickly I caught a slight movement from a den tree 70 yards to my right.



Ted's rifle barked for a third time.

The squirrel began a very slow descent from its den. I watched the gray through the scope but could not hold the rifle steady.

I eased up from my sitting position and carefully leaned the Remington against the tree I'd used as a backrest. Ted had told me of the gun's accuracy and assured me of a kill at this range if I did my job.

It seemed like an impossible shot, but I decided to try it for three reasons. The squirrel hadn't moved, it was against a large backstop and, finally, I had a steady rest.

It seemed as though the rifle went off by itself. I had squeezed the trigger ever so slowly, and I knew the shot was good. If Ted had given me the proper information, there should be one dead squirrel falling to earth.

^u I quickly moved my head to one side, and I saw the squirrel hit the ground. It was as big a thrill as getting a deer.

When Ted's rifle fired a fourth time I let out a sigh. Well, I thought, I may not have as many as he does, but I bet I shot one farther away than he did.

Before the morning ended I added another squirrel to the bag. I took this one at a mere 30 yards, but it was satisfying all the same.

Ted came back with three grays in his hand. He had connected on the first two, missed one when it moved, and took a third one in an oak tree.

I didn't get another chance to hunt squirrels with Ted during the 1989-90 season. We did plan a hunt for the following season, though.

One night, almost a year after we had planned our first squirrel hunt, I visited Ted's shop.

"Did you ever finish that squirrel story for GAME NEWS?" Ted asked.

I told him I hadn't, stammering some excuse about having forgotten about it. But I finally had to admit I hadn't been

able to pull the story together. "Something seems to be missing," I said.

"I've got another idea I wanted to tell you about," Ted said. "Want to try it with Contenders?"

Now I'm not a good handgun shot, but the idea was appealing. "I suppose you just happen to have a couple?"

Ted didn't reply but instead came around the counter and reached into a small glass case in the corner. When he pulled out scoped Thompson/Center

Fun Games

"Look Hare!"

By Connie Mertz

Can you find the four statements that are false? Place your answers and corrections in the spaces provided below.

- _____ 1. Varying hares are so named because they change colors twice a year.
- _____ 2. Color changes are determined by changing seasonal temperatures.
- _____ 3. Hares do not build nests or have burrows.
- _____ 4. One to six young are born to a doe.
- _____ 5. Young hares are called "leverets."
- _____ 6. Young hares are born without fur and are blind.
- _____ 7. One predator of the varying hare is the snowy owl.
- _____ 8. Because hares blend in with their surroundings, they stay away from thick, brushy areas.
- _____ 9. Hares depend on woody plants for food in winter.
- _____ 10. Deep snows are a hazard to hares.

Those false are:	Corrections:
_____	_____
_____	_____
_____	_____
_____	_____

answers on page 64

Contenders in 22 Hornet and 270 Ren, I knew Ted had the makings for some squirrel stew.

The following Saturday Ted dropped me off at the same spot I'd hunted the year before. We decided to hunt alone for a while and come to each other's aid if the shooting became fast and furious.

The early morning was still, but when I got situated a steady breeze began to blow. The frigid air stung my ears, and I wished for the hooded sweatshirt I'd inadvertently left at home.

The breeze began to blow a little harder; the prospect of seeing squirrels began to look dim. Just then Ted's 270 Ren roared.

Within five minutes his Contender sounded several more times. He's got a whole herd over there, I thought as I began to hike toward his position.

Ted held up an extremely large squirrel when he saw me coming. "What's going on?" I said, trying to smile with a frozen face.

"I got two but I think my Ren is slightly off," Ted said. "You didn't see any?"

"No, but I wanted to see you get one," I said as I attempted another smile.

"Try to shoot that one behind you," Ted said with a chuckle.

I missed the gray, but Ted showed me how to hit with the Hornet. Then he made a second shot on one at nearly 50 yards.

"You really know how to shoot that thing," I said with a little envy in my voice.

"Well, it takes a little practice," he said. "Those handloads I made up for it shoot flat out to 100 yards."

Well, I "practiced" on two fairly easy shots and felt rather embarrassed that I missed.

"Don't let it bother you," Ted encouraged me.

Once again, Ted saw a squirrel I hadn't noticed. He pointed in the squirrel's general direction. "Get a good rest and squeeze it off"

Following his instructions, I took a deep breath. At the roar of the 10-inch



barreled Contender, the partially concealed squirrel fell.

You'd have thought I'd shot a buck. We both got so excited. "Now you've got it, Carl," Ted said with an ear to ear smile.

The weather finally got the best of us so Ted and I decided to call it a morning. As we began to pick up our squirrels, I noticed another one perched in a tree no less than 35 yards away. It seemed like an ideal setup.

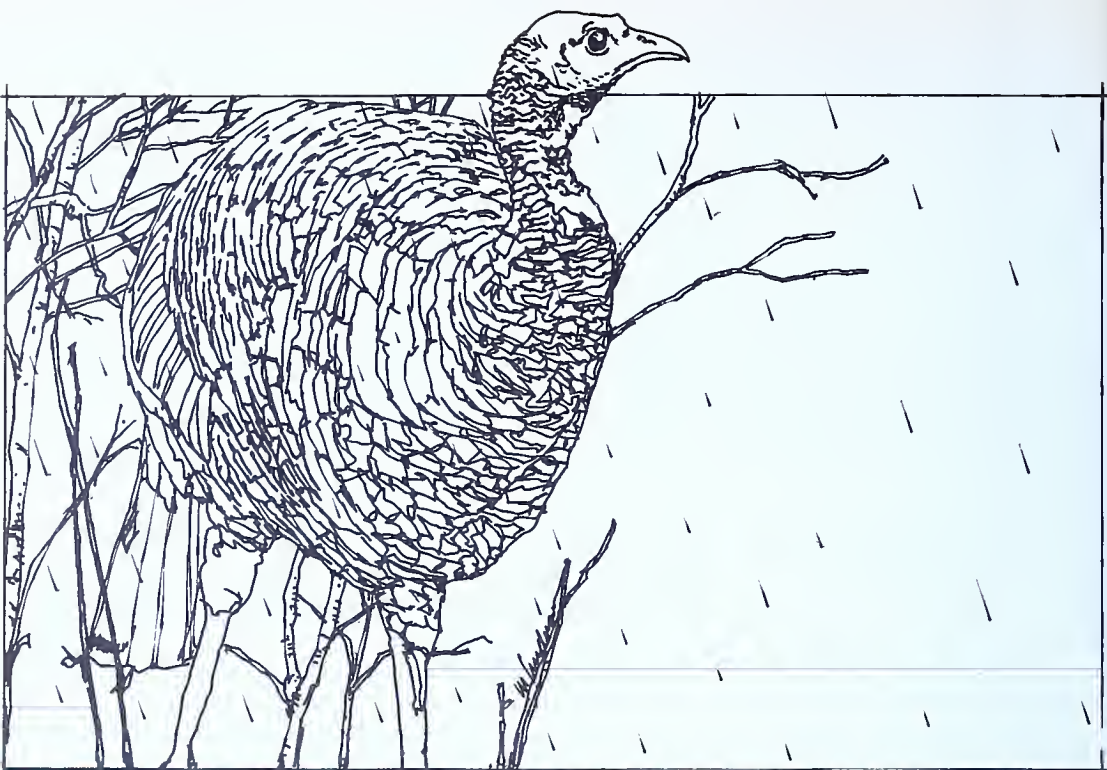
I tried to shoot that squirrel five different times. Each time I had a good hold, but a branch was in the way or the animal would move. Finally, on the sixth try, I was able to get a clear shot. The crosshairs stayed on the squirrel after the mild recoil.

Hard to Describe

I watched as my second kill fell to the ground. It's hard to describe the thrill you get when you go out of your way to make squirrel hunting a more challenging sport.

Ted Wertz is always trying to find ways to give his quarry a better chance. When chucks became too easy for him with the 220 Swift and 17 Remington, he turned to the Contenders. He's since made some 100-yard plus shots with them.

I never thought I'd enjoy shooting squirrels with a handgun, but it definitely adds a new dimension to the sport. I'm going to see Ted pretty soon, and the subject of squirrel hunting is sure to come up. I can't imagine what we'll be using next time.



BETWEEN LAYING ASIDE his gun to use the call and vice versa, the hunter was caught between changes when the hen appeared 30 yards away. He had no choice but to freeze and pray that she would get careless enough to give him a shot. Needless to say, that didn't happen. The hunter attempted to shoot, but the hen vanished.

Turkey the Hard Way

By Marion Younkin

THE MOUNTAIN was shrouded in thick clouds and the rain fell steadily on forested slopes, muted drumming in the early morning stillness. A faint glow, as much imagined as seen, grew over the eastern ridge, signaling a dawn that promised to be dull and dreary. Gradually, slight noises could be heard as the mountain slowly awoke.

A dark shadow moved up the ridge, moving hunched against the chill and wet wind. From tree to tree the silhouette progressed toward the summit of the western ridge overlooking the Caselman River. As the light strengthened by degrees, the shape could be seen to be a solitary hunter, a shotgun tucked under his arm.

The man silently worked his way to a large outcrop that was almost a cliff and then settled down as comfortably as possible. Drawing a box from his tat-

tered hunting jacket, the hunter experimentally tried a few calls.

The rain moved in sheets like smoky cellophane across the valley and the clouds hung in tatters from the mountaintops. Perhaps this was not an ideal day to be turkey hunting, but time was precious and no moment was wasted. His job, family and home seemed to demand more and more of his time, so every spare minute was cherished—and used.

Not having a lot of faith in his chances for finding grouse or rabbit in this weather, the hunter had decided to try his luck on turkey. At least he might run into a bird that had been cut from the flock, or maybe even call one to him. Now, looking skyward, he watched the rain march toward the east as the light grew stronger. A couple of clucks from his slate produced no response,

so he settled more comfortably on his stand and scanned the area he had chosen.

A small brook, now swollen with rain, ran down the ridge line to the swamp in the bottom. Small maple and oak saplings lined the banks high on the slope, while farther down they gave way to crab apple and grapevines. From his little cliff to the right the hardwood forest stretched out of sight. Here and there blowdowns from past storms created dark tangles in the even terrain. Layers of rock jutted out of the ground at irregular intervals, making a moon-like landscape and giving shelter to a wet hunter.

The mountain had not changed a lot since his boyhood days when he roamed these hills in search of game and adventure. The ridges were the same, but they seemed a lot steeper now, especially this early in the day. The river roared continuously in the distance, blending with the sounds of the awakening mountain and creating a backdrop of noise that the hunter had to deal with to identify any response to his calls. He didn't mind; the river was an old friend.

Quick movement to the left. Involuntarily, he jerked his head around in time to spot a gray squirrel scoot up an oak and vanish. His heart slowly returned to normal and he scolded himself for the sudden movement, knowing that a turkey would have seen him sooner and vanished more quickly than the squirrel had done. Discipline, he told himself, or the whole morning would be wasted.

Slowly he began to scan the forest, looking for any sign that might indicate turkeys had been working the area. The oriental-fan silhouette of a large maple caught his eye. The symmetry of the outline against the sky contrasted with the oak the squirrel had used and seemed out of place in the jumbled mass of the ridge. Suddenly, a deer materialized beneath the maple and began browsing toward the hunter as silently as the dropping mist.

As the deer neared the foot of the

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For a Friend . . .

cliff, he could make out a rack of seven points. Noting that the deer made no sound, he wondered if he would be able to hear a turkey in the slanting rain. Clucking softly with the slate, he began a series of calls that he hoped would get a response.

Dawn was a good hour in the past, but the light was not much better than when he arrived so, not surprisingly, he missed seeing the deer until it was almost on top of him. Looking to the right, he came face to face with the very startled 7-point and almost dropped his gun. As the buck trotted into the grapevines below, the hunter reflected that this was turning into a circus.

Peeps

Peeps sounded to the left as he was watching where the buck had gone, and the jake caught him totally unprepared. As he swung his head around, the jake's head came up and he stared straight at the helpless hunter. Any movement now would send the jake off for the next area code. The jake continued to stare as the hunter tried to appear like a tree stump while silently cursing himself for getting caught like a rookie. The jake's feathers fluffed in the wind like errant puffs of hair.

The hunter couldn't help but admire the alert stance and the proud posture of the immature bird, but he sure wished the bird would look the other way so he could raise his gun. Finally, the jake began to move warily down the slope, keeping an eye on the hunter the entire time. No chance for a shot.

Deciding to let the jake calm down a little before trying to call to him again, the hunter slowly scanned the ridge, looking for any more birds that may be around. After 10 minutes he clucked softly and was rewarded by a series of



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peeps from the jake in the grapevines. Calling softly at regular intervals, he got a response from the jake almost every time, but the bird refused to come any closer.

Falling completely silent, he tried to make the jake curious but was met by silence. After about half an hour he figured that the bird was too nervous to come in and decided to try for another one. He climbed stiffly to his feet and caught a glimpse of the jake streaking off from the creek bed behind him. He'd been circled. The jake had taken advantage of the quiet leaves to get a closer look at the hunter without being spotted.

Soaked But Undaunted

As the morning grew older, the rain gradually decreased and the sun tried to poke through the cloud cover. Soaked but undaunted, the hunter slipped quietly into an area where he'd had some success in the past. In fact, he had bagged his first turkey from the stand that he was headed for. Several years earlier he had nailed a young hen in the fall season at the top of the ridge where it fell steeply to the river.

Turkeys were a lot less wary then be-

cause there were fewer hunters looking for them. The hen, on that day long ago, had crossed the ridge late in the day, on its way to roost in the hemlock trees along the river. He dropped it, but it took three shots from his 16-gauge Ithaca to do it. He remembered how proud he was of that first turkey and tried to count how many had fallen in the intervening years. At least six, he reckoned, but he couldn't be sure.

Now he slumped down next to the same oak that he had been under for that first bird and hoped that luck wouldn't desert him. Calling softly, he began a series of calls that gradually increased in volume, trying to get any birds in the area to give themselves away. Almost immediately he got an answer and began to scan the hillside where the answer had come from. Seeing nothing, he clucked twice more and was delighted to hear an answer from about 20 yards away but behind a screen of brush.

Between laying aside his gun to use the call and vice versa, he was caught between exchanges when the hen appeared 30 yards away. Cursing silently, he had no choice but to freeze and pray she would get careless enough to give him a shot. Needless to say, that didn't happen. Lunging for his shotgun, the hunter made a desperate attempt to get a good shot off. The hen vanished like smoke. Not willing to give up on this spot so easily, he decided to wait for 20 minutes and try again.

Turkeys are canny birds, and any hunter who has matched wits with them will tell you that they are a whole lot smarter than hunters. It came as no surprise to the hunter when a loud cackle sounded to his right and the vanished hen was seen as a dark blur dashing through the trees. It had been one of those days.

Thoughts While Walking

Our life is frittered away by detail . . . Simplify, simplify.

—Henry David Thoreau

THE HUNTER COULDN'T help but admire the alert stance and proud posture of the immature bird, but he sure wished it would look the other way so he could raise his gun. The jake moved warily away.

About 30 minutes later he noticed something moving in the scrub brush at the top of the ridge. Not really believing that history was repeating itself, he gave the shapes a half-hearted glance. Four birds were crossing the ridge and none had spotted him yet. Bringing the red bar of his front sight to bear on an opening about 20 yards away, he patiently waited for a target to present itself.

Seconds seemed like hours as he kept one eye on the birds and one eye on the clearing. The birds were in no hurry as they stopped to scratch for acorns amid the downed autumn leaves. He admired their grace and beauty as these kings and queens of the mountain slowly came into range. A young hen poked her head into the clearing and began to scratch the leaves. His finger tightened on the trigger, and seconds later it was over.

Looking at the dead bird closely for the first time, he wondered how many



hunters would stand, as he did, admiring one of the truly magnificent game animals of Pennsylvania. This year the prize had not come easily, not that any turkey ever did. The slopes of Mount Davis had proven, again, that the best hunts are not always the easiest.

NEARLY 65 young sportsmen participated in the Hunter Education Youth Shooting Tournament held at the Orangeville Sportsmen's Club last June. Senior Division winners, above, representing the Sayre Sportsmen's Club, will represent Pennsylvania at the North American Youth Hunter-Ed Challenge being held at the NRA Whittington Center in Raton, New Mexico.



Middle Creek Wild Fowl Show

DENNIS BURKHART, above, frequent **GAME NEWS** contributor, was among several artists showing their work at last year's Middle Creek Wild Fowl Show. **Brad Snyder**, below, demonstrates the steps involved in carving award winning decoys.



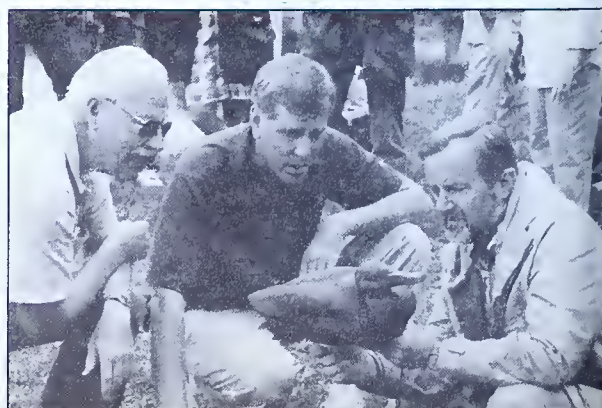
NOT MADE simply for show, working decoys rigged and displayed on the water, just as they're used in hunting situations. Decoys were then judged among other factors, by how life-like they rode on water.



WINNERS of the diving duck—canvas-back—competition were **Rick Lubenesky**, Bethlehem, whose first place entry is shown here by **Ned Mayne**, left. **George Root**, Mount Joy, captured second place, **Brad Snyder**, Hanover, took third and honorable mention went to **George Williams**, Dover, DE.



THE UNENVIABLE task of judging the decoy entries was done by **Jim Karsnitz**, **Ned Mayne** (winner of Delaware's first of state duck stamp contest) and **Joe Kline**.





VISITORS CENTER at the Middle Creek Wildlife Management Area is a most fitting facility for such a wild fowl extravaganza.

FOR THE last four years, the Lancaster Chapter of Ducks Unlimited and the Pennsylvania Game Commission have sponsored a wild fowl show at the Middle Creek Wildlife Management Area. The show features a floating decoy competition, decorative decoy competition, world class judging, silent auction, and carvings and fine art prints by renowned artists. This year's Wild Fowl Show will be held September 7 & 8, rain or shine, from 9 a.m. to 5 p.m. each day. There's no charge for admission or parking. If you're at all interested in waterfowling, or waterfowl decoys and artwork, you'll certainly enjoy this show.

PGC Photos by Bob Haines

GEORGE ROOT, center, captured first place in the shorebird category, in which each contestant displayed a rig of six shorebird decoys. Linda Robinson, Bel Air, MD, took second place, and Jim Stewart, West Fairview, came in third.



DECOY competitions, both working and decorative, along with auctions, artists' displays and much more offer something for everyone.



GEORGE ROOT, right, also came away with first place honors in the puddle duck—black duck—category. Second place went to Mike Smyser, Manchester, center, while third place was captured by George Williams, left, Dover, DE.



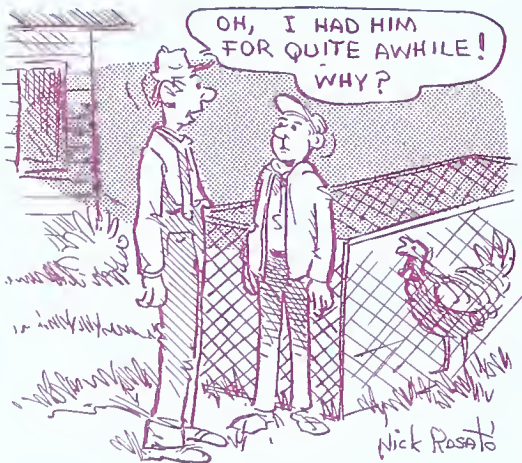


FIELD NOTES



Still Better Here

The plight of ring-necked pheasants across North America has been well-documented. Browsing through some publications I saw that 28 percent of Utah's pheasant habitat has been lost in the last 33 years, and that the state's pheasant population is at an all-time low. Most interesting, though, was the New York newspaper article that said, "The Department of Conservation has decided to scrap the state's half-million dollar a year pheasant rearing and release program." The writer went on to advise "(New York) hunters who want to pursue pheasants will have to choose between shooting preserves or buying Pennsylvania licenses."—IES Michael W. Schmit, Fleetwood.



No Names, Please

CHESTER COUNTY—Let's hope the upcoming fall turkey season goes better than the past spring gobbler season. A sporting goods store owner, who will remain nameless, was hunting with a friend and receiving a great deal of response from a gobbler. After trying every call in the book without coaxing the bird in, the two remarked how unusual it was that the turkey was so close to a house. They later found the bird was in a pen in someone's backyard.—WCO William C. Ragosta, Nottingham.

Good News

INDIANA COUNTY—I was recently in a swampy area along little Mahoning Creek and was treated to the rare sight of a great egret. These large white wading birds are a threatened species in this state, where they're normally found only around the Susquehanna River. The sighting served as a reminder of how important wetland habitats are. Their value to mankind far outweighs whatever minimal profit may be gained from their destruction.—WCO A.S. Hamley, Beyer.

Slow Down

LYCOMING COUNTY—When cars whiz past me, even when my red light is flashing, I often wonder how many deer and other animals would be saved if people would only drive more slowly. Wildlife populations are at their highest levels this time of year, so slow down and enjoy the scenery; that way you might not be viewing wildlife on the hood of your vehicle.—WCO Dennis Dusza, Williamsport.

Preventive Measures

JUNIATA COUNTY—Last spring I trapped a 345-pound male bear from John Mangle's property south of Thompsonstown. The bear had taken a liking to John's beehives. Because John had followed Commission guidelines by placing his hives within 200 yards of the house and had his land open to public hunting, he was eligible to receive reimbursement for the damage the bear had done. We also highly recommend electric fencing around hives, coupled with the wrapping of bacon slices around the wire; it creates a shocking experience for bears when they try to remove it with their tongues, and it takes their minds off their sweet tooth.—WCO Dan Clark, Honey Grove.

Valuable Real Estate

LUZERNE COUNTY—Many people still believe wetlands are nothing more than mosquito-infested swamps. But one-third of our endangered species need wetlands to survive—a fact that makes this valuable real estate worthy of protection.—WCO Edward J. Zindell, Wilkes-Barre.

Has A Kitchen, Too

MONROE COUNTY—For the second year in a row, a pair of starlings has built a nest in our gas grill. They entered through a small, $2\frac{1}{4}$ x $1\frac{1}{4}$ opening on the side. When I opened the lid, I found they had the entire double-burner grill surface covered. The nest was 16 inches wide and $4\frac{1}{2}$ inches high.—WCO David E. Overcash, East Stroudsburg.

Redtail First Aid

WESTMORELAND COUNTY—Last March Janet Baird, Jeannette, called about an incredible confrontation between two red-tailed hawks. She watched the birds fly at one another, unite about 100 feet up, lock talons and then plummet to the ground. Janet placed the birds on a blanket and carried them to the house. I got there 15 minutes later to find the two mature males still locked together. One had its talons embedded in both legs of the other; the second bird had its claws embedded in the chest and legs of the first. I hooded the pair and unlocked the talons, with help from Janet and my son, Steven. After getting the birds separated I placed them in transport boxes and took them home. I treated the first bird for minor leg wounds and released it at the capture site several hours later. Deputy Edward Farzati took the second bird to Dr. Croft, Stahlstown, who treated its wounds and released it. It was the first time I'd seen such a savage encounter between two birds of prey and can only assume it was a territorial dispute between the two males.—WCO J.V. Stefko, Greensburg,



Dream On

CLEARFIELD COUNTY—The number of bear complaints I handle in my district is beginning to affect my husband. One night he had a vivid dream that he was walking through the woods and saw a sow bear with 10 cubs. The state's bears do have a high reproductive rate, but I hope this is one dream that doesn't come true.—WCO Colleen Shannon, Luthersburg.

Cheapskate

WAYNE COUNTY—Being close to nature took on new meaning for a Lake Ariel woman. When she turned on her kitchen light early one morning, she discovered a bear sitting at her kitchen table. She learned that this bear, at least, starts its day with two loaves of bread, a quarter-pound of butter and a bowl of sugar. The ill-mannered guest then dove out the window from which he'd entered—without leaving a tip.—WCO Donald R. Schauer, Honesdale.

Paint Job

BUCKS COUNTY—Last spring I was called to Quakertown, where I was pleasantly surprised to find a black-crowned night heron perched in a tree over a homeowner's driveway. The homeowner had mixed emotions about the uncommon bird's presence, though, as in less than 24 hours it had turned his blue car white.—WCO Cheryl A. Trewella, Trumbauersville.

Strategic Campaign

BEDFORD COUNTY—Last fall we flew night patrols on five nights in various parts of the state. From the patrol plane we guided ground forces to nighttime poachers. Each of the flights resulted in successful prosecutions, proving—as we did in the Middle East—that he who commands the skies has the upper hand.—WCO Dave Koppenhaver, Everett.



Playing Hard to Get

ADAMS COUNTY—While releasing hen pheasants on a farm in Union Township, I watched as a cockbird flew out of a fencerow and landed close by. Perhaps expecting a confrontation with another male intruding into his territory, he instead suddenly found himself looking at several hens headed toward him. He beat a hasty retreat and was last seen on the other side of the fence headed across the pasture; the hens in hot pursuit.—WCO Larry Haynes, Gettysburg.

Mutual Benefit

McKEAN COUNTY—With continual changes in food and cover and game populations, now is a good time to begin preseason scouting. At the same time, get acquainted with the landowners. It's a courtesy they'll appreciate, and they can often tell you what conditions are like as well. Both the landowner and the hunter can benefit from preseason scouting.—WCO John P. Dzemyan, Smethport.

Grow Your Own

MERCER COUNTY—The Commission's annual seedling distribution program provides seedlings to our Farm-Game and Safety Zone cooperators. Agency seedlings are also made available to sportsmen's clubs, Scout groups, schools and other organizations. They're a great help to wildlife, providing food and cover, thanks to all those who plant them. You, too, can thank those folks by planting a few of your own.—WCO Donald G. Chaybin, Greenville.

Laying Blame

BLAIR COUNTY—During an afternoon patrol, I rounded a curve and observed a slow-moving vehicle ahead. I stopped, reached for my binoculars, and then watched the camouflaged arm of the driver throw a container over the road bank. I stopped the vehicle and noticed a small boy standing on the front seat. As I began to question him, the man said he had no idea why I'd pulled him over, and I told him I saw him litter. Without blinking an eye the offender pointed to his son and said, "It must have been him." The litterbug paid a \$50 fine.—WCO Don Martin, Williamsburg.

Changing Attitudes

YORK COUNTY—I recently attended a zoning board hearing regarding a special exemption request to change zoning regulations on a piece of property. One of the parties requesting the change noted that the property contains wetlands and that any future construction would require state and federal evaluation. I kept thinking how things have changed over the past 20 years. No one would have raised the wetlands issue back then; the exemption would have been obtained and the wetland filled to accommodate the construction. While not all projects turn out the way we might want them, it's reassuring to know that people are at least thinking about the environment.—WCO G.C. Houghton, Emigsville.

Improving Turkey Habitat

A big thanks to Joe Krug and the members of the Allegheny Mountain chapter of the National Wild Turkey Federation for their continued efforts to improve turkey habitat. They have completed several plantings of selected seedlings on game lands in my land management group. Joe is an active member in the group's habitat committee, recommending sites for habitat work, planting trees (raising quite a few apple and crab apples in a nursery at his home) and maintaining planted trees. Joe recently took part of a day to share his knowledge of wild apple tree management and grafting techniques with my Food and Cover Corps employees. We enjoyed it and learned some useful techniques. Thanks to all the individuals working for wildlife.—LMO Steve Schweitzer, New Enterprise.



Keep It Clean

I've noticed that some organizations have adopted portions of highways by picking up litter and keeping the roadsides clean. I think it's a great program, and I've seen it work well in some of the midwestern states. The shameful part of this is that it wouldn't be necessary if people would stop living like pigs. Seeing all this litter used to make me angry, and it still does, but it also makes me sad to think of people choosing to live under filthy conditions.—LMO R.H. Muir, Kittanning.



Lesson Learned

A proud grandfather told me about taking his grandson for a walk near his camp up in northcentral Pennsylvania. First they found a shed antler, and then grandfather pointed out an old buck rub. They continued their walk, and when they returned to the buck rub, the grandson backed against the tree and rubbed up and down. "What are you doing," the grandfather asked. "I'm rubbing my butt," the boy replied. "I said buck rub, not butt rub," the grandfather said, and then with the antler showed the boy how a buck rub is made.—Federal Aid Supervisor P.A. Hilbert, Cleona.

Quick Cleanup

In March an oil tanker rolled over in Hartstown, dumping about 5,000 gallons of oil. Some of it worked its way into Crystal Lake, which is part of SGL 214. I'd like to commend the hazardous materials teams that cleaned up the contamination. Cooperating agencies such as DER, the Fish Commission, Crawford County's emergency personnel and local fire departments all deserve thanks for a job well done. Blake Neely and his crew worked long, hard hours, and I think they went the extra mile to rectify the situation. Cleanup and monitoring of the site will continue through the summer, but the damage to the water and wetlands was held to a minimum.—LMO Keith E. Harbaugh, Meadville.

Control Those Pets

BEDFORD COUNTY—While patrolling SGL 73 last spring I watched two small dogs kill a gobbler. The bird weighed about 19 pounds and sported a 10¼-inch beard. Two weeks later I discovered a deer in the same area that had been killed by dogs. Such unfortunate incidents could be prevented if people would only keep their pets under control.—WCO R. Jim Trombetto, New Enterprise.

Adoption Program

SCHUYLKILL COUNTY—Ray Lipko of the Little Schuylkill Conservation Club suggests that organizations adopt state game lands in the same manner they adopt streams—picking up litter found along roads that pass through the property. If every club in the commonwealth would adopt a game lands, it would lead to a cleaner environment.—WCO John Denchak, Gordon.



Roadkilled Fish?

SCHUYLKILL COUNTY—Roadkilled birds and mammals are an all too common sight here. But Carl Reidler, Klingerstown, couldn't believe his eyes when he found a big trout on the road near his farm. It was too far from the stream to have jumped there, and no fisherman in his right mind would discard a trout that size. The mystery was solved about a week later when I spied an osprey clutching its freshly caught fish in the same area. Looks like I won't have to modify my deer rack after all.—WCO Stephen S. Hower, Tremont.

Fair Season

CRAWFORD COUNTY—August is here again, marking the end of summer and beginning of fall. It's also the time of year for county fairs and, as in past years, the Commission will have exhibits at many across the state. My deputies and I look forward to manning these exhibits because it provides us with opportunities to meet and talk with members of our communities. It's a chance to answer their questions, and while we don't have all the answers (who does?) we can clarify many issues. See you at the fair.—WCO Michael G. Ondik, Saegertown.

Keep Out

We're familiar with the human-like characteristics Walt Disney and other cartoonists have ascribed to animals, but over the years I've done the opposite. I look at humans and their behavior and try to see an animal trait to explain people's actions. One day I observed a landowner posting "no trespassing" signs around his property. That same morning I watched a red fox traveling along the edge of his territory, lifting his leg on rocks and tufts of grass. Both activities leave the same message.—LMO R.B. Belding, Waynesburg.

Safe Haven?

ELK COUNTY—On the opening day of spring gobbler season, Deputy Bill Printz and I checked a group of guys dressed in hunting clothes and fishing boots. We learned that they'd hunted the area for several hours without finding birds and figured they'd have better luck fishing for trout. While we talked and they finished getting their fishing gear in order, a turkey walked across the road a short distance away. I wonder if that turkey knew the difference between a hunter and a fisherman, or maybe it knew it was safe as long as the green Jeep was there.—WCO Richard Bodenhorn, Ridgway.



BOWHUNTERS bought record numbers of archery stamps in 1990-91 and harvested nearly 20,000 deer, of which more than 11,000 were buck. Muzzleloader season, likewise, saw good participation; flintlock hunters took more than 12,000 whitetails. The majority of the black powder harvest was antlerless deer.

Primitive Arms Hunters Enjoy Good Seasons

ARCHERS AND BLACK POWDER enthusiasts scored well during the state's 1990 deer seasons, with a total calculated harvest of more than 31,000 whitetails. Bowhunters bought a record number of archery stamps last year and harvested 19,032 animals. Flintlock hunters, who also bought large numbers of licenses, took 12,233 deer. 1990-91 archery and flintlock harvest figures are derived from formulas based on the actual number of report cards received, combined with reporting rates and other pertinent data.

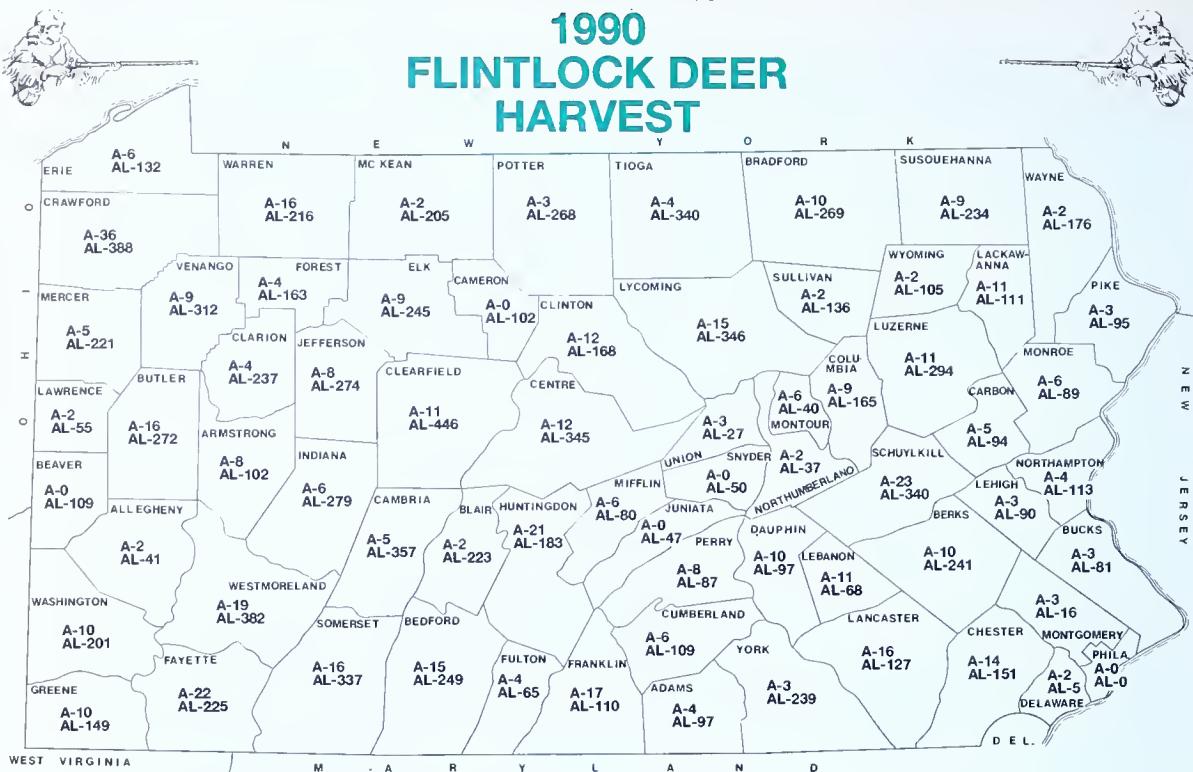
Records show issuing agents sold more than 284,500 archery stamps, topping the record set in 1982 when 283,670 stamps were purchased. 105,200 muzzleloader stamps were

sold last year, marking the first time since 1983 that more than 100,000 stamps have been purchased.

"This is the first time we've released calculated archery and flintlock harvests," Commission biologist Bill Shope



1990 FLINTLOCK DEER HARVEST



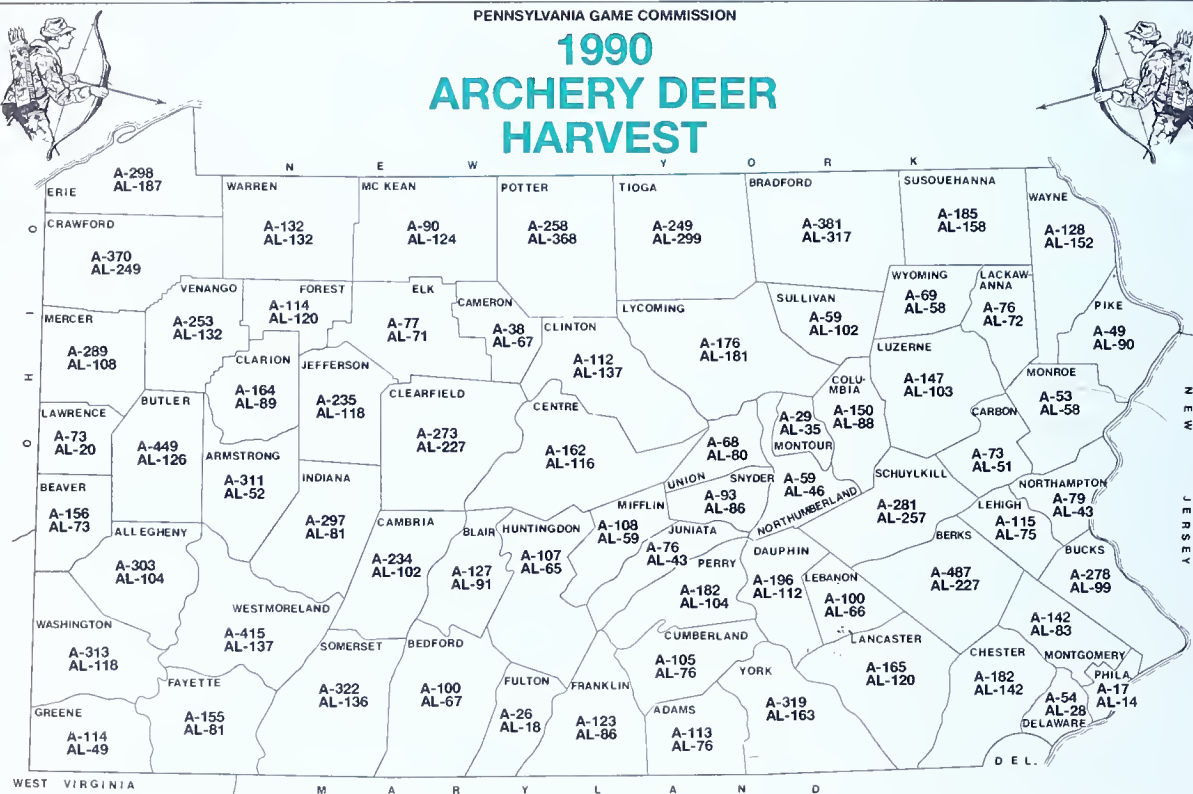
ANTLERED DEER
(SYMBOL-A)

ANTLERLESS DEER
(SYMBOL-AL)

COUNTY TOTALS 538 11,657
 COUNTY UNKNOWN 4 34
 TOTAL 542 11,691

GRAND TOTAL FLINTLOCK DEER HARVEST 12,233

1990 ARCHERY DEER HARVEST



ANTLERED DEER
(SYMBOL-A)

ANTLERLESS DEER
(SYMBOL-AL)

COUNTY TOTALS 11,533 7,414
 COUNTY UNKNOWN 49 36
 TOTAL 11,582 7,450

GRAND TOTAL ARCHERY DEER HARVEST 19,032

said. "They are unquestionably more accurate than the figures we've used historically—which were the number of report cards submitted by hunters. Studies show only about half the hunters who take deer report their harvests to the Commission."

Archers took 11,582 bucks and 7,450 antlerless deer in the 1990 seasons, down from the record harvest of 1989 when bowhunters took 13,093 bucks and 10,316 antlerless deer, according to Shope. The flintlock harvest dropped slightly from 1989 to 1990. In 1990, muzzleloader hunters took 542 bucks and 11,691 antlerless deer, while in 1989 they harvested 611 bucks and 14,616 antlerless deer.

For the eighth consecutive year, bowhunters took more bucks than antlerless deer. This year's margin—using either calculated or reported harvest figures—is the widest ever established by archers.

Deer biologist Bill Palmer attributed the increased archery buck harvests to the high antlerless deer license allocation and the bonus deer program.

"With so many antlerless deer li-

Landowner Licenses

Beginning this year, landowners with 80 or more acres enrolled in the Game Commission's Farm-Game or Safety Zone programs may buy a regular hunting license at a reduced fee of \$3.75—a savings of \$9. The license will entitle the holder to hunt throughout the state during the 1991–92 seasons. Under this program, only one license per cooperative landowner agreement will be issued. This special license was developed to recognize the contributions made to the general hunting public by landowners participating in the agency's public access programs. Applications for the landowner licenses are available from the Commission's six region offices and the Harrisburg headquarters.

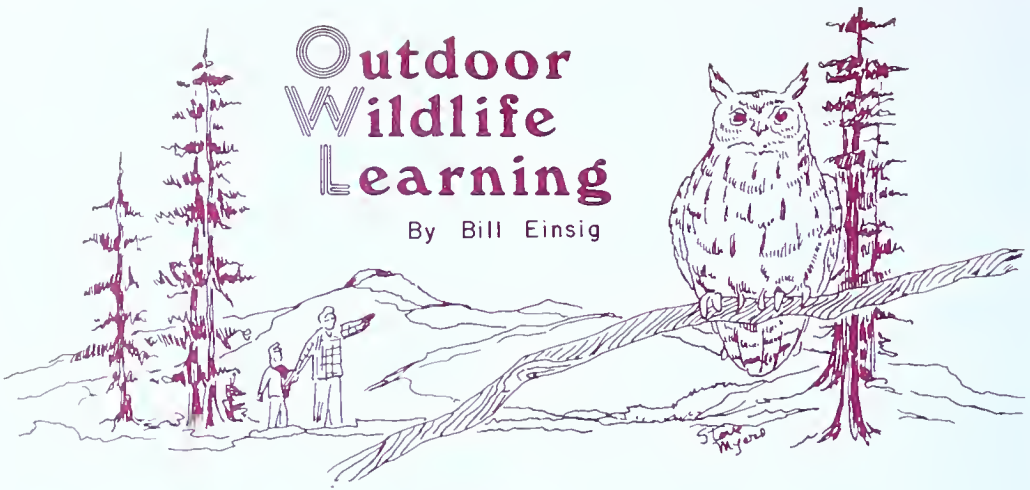
censes available and the opportunities for hunters to take two or possibly three deer in a license year, archers seem to be more willing to hold out for bucks, knowing they have many more hunting opportunities in the following seasons," Palmer said.

THE GAME COMMISSION at its June meeting honored the following individuals with Outstanding Employee Awards: Centre County WCO Jack Weaver, Bellefonte; Wildlife Technician Calvin Butchkoski, Petersburg; Federal Aid and Public Access Division Chief John A. Byerly, Harrisburg; Northcentral Region Secretary Debra M. Chappel, Jersey Shore; Land Management Supervisor Kenneth M. Zinn; and Labor Foreman Robert L. Hughes, Trout Run. Flanking the award recipients are Commission President Edward L. Vogue, Jr., left, and Executive Director Pete Duncan.



Outdoor Wildlife Learning

By Bill Einsig



Robin Behavior Explained

Dear Mr. Owl,

I'm an avid bird watcher and I've noticed that robins tilt their heads whenever they stop moving. Are they looking for or listening for worms? Because robins eat meat, are they classified as carnivores? J.T., Philadelphia

Dear J.T.,

The American robin is perhaps our most familiar, and best-loved bird. Among our most abundant birds through much of the year, the robin is a common sight during all but the coldest months in Pennsylvania.

It's tempting to believe the robin is a thoroughly studied and well-understood bird; robins are among the most trusting birds in their relations with humans. Yet many questions about the biology and behavior of these songbirds remain unanswered. Your question has perplexed quite a few observers.

It certainly appears that feeding robins often cock their heads to one side as if to focus their hearing on the ground. There is some evidence that robins and certain other ground feeders can hear vibrations caused by subsurface prey movements.

Birds have a very well-developed sense of hearing. Some birds can hear lower pitched sounds than can be detected by human ears, others can hear sounds pitched higher than the human threshold. Most birds, however, hear a smaller range of sound frequencies than the average human. A young, healthy human ear can

detect sounds spread over about nine octaves while birds generally hear about five octaves.

Most songbirds distinguish faster notes than we can. Recordings of birdsongs reveal very rapid, hidden notes undetected by the human ear. The ability of young birds and mimics to learn these songs indicate that they can hear those notes.

But while the hearing of birds is good, their vision is fantastic. Birds, in general, can see much more sharply and at greater distances than can humans. Typically, they receive the majority of their information through their eyes. It is their primary sensory system.

Birds have very large eyes compared to their bodies. Starlings, for example, have eyes that comprise about 15 percent of their total head weight. Human eyes, in contrast, represent only about 1 percent of the human head weight. Large eyes produce larger images on the retina and, therefore, greater sharpness.

Birds' eyes also have fantastic peripheral vision. Birds with eyes placed on the sides of their heads have fields of view of about 340°. Others, with forward-looking eyes like owls, may have only a 70° field of view.

Now, consider the robin hopping across the backyard. It hops and stops, remaining motionless momentarily. Then it suddenly jerks its head and appears to stare to one side. A second later the bird picks up and eats an ant, beetle or earthworm. Is it stopping to listen or to look?

Both, I think. Like a hunter wading through a stand of grass at the end of a corn field, the robin's eye scans for the slightest movement and its ear strains for the first sounds of the fleeing prey. It's a combination of the sense that provides the robin the information it needs to find food.

The tilting head movements may be an aid for better visual information. Viewing an object from slightly different angles can give better estimates of its distance or size.

Your second question is also a good one because labels like "carnivore" are used in various ways and lead to much confusion.

In one sense, carnivore has a very specific meaning. It refers to a member of the taxonomic order of mammals—*Carnivora*. In this sense, the term only hints at the animal's diet. Foxes, wolves, bobcats, skunks and bears are examples of carnivores because they belong to this order, even though their diets consist of more than meat.


In a more familiar sense, carnivore refers to a "meat eater." We use the term to differentiate between "herbivore," a plant eater, and "omnivore," an animal that eats both plants and other animals. Thousands of school children learn these terms and develop mental images of all animals fitting nicely into one of the three groups. But wild animals, of course, don't know about our little compartments and memorized labels.

Animal diets are typically far more variable than we imagine. They frequently change with the seasons and as the animal matures.

Red foxes, for example, are members of the order *Carnivora* and do eat significant amounts of animal flesh. But they also ingest large amounts of vegetable material. Bears and raccoons are also members of the carnivore group but are common examples of omnivores.

On the other hand, gray squirrels appear to be the prototypical herbivores. We've learned they eat nuts, buds and various seeds. However, they sometimes eat some animal flesh in the form of grubs, worms or an occasional nestling bird.



Actually, few species are absolute carnivores or absolute herbivores. The vast majority of animals typically eat plant and animal food. Carnivorous animals, in general, have a decided preference for animal



the lawn ranger

In the summer, up to 50% of the water Americans use goes to outdoor needs such as watering lawns. To prevent excess evaporation, water early or late in the day. Or, better yet, replace grass with ground cover, shrubs, and trees to save water AND attract wildlife.

FOR MORE CONSERVATION TIPS AND INFORMATION, WRITE FOR NWF'S CITIZEN ACTION GUIDE, NATIONAL WILDLIFE FEDERATION, EARTH DAY PROGRAMS, 1400 16TH STREET NW, WASHINGTON, DC 20036-2266



Working for the Nature of Tomorrow.

flesh and could be seen as near one end of a diet spectrum. Herbivores have a great dependence on plant material and occupy the opposite end of that spectrum. Omnivores eat a variety of food and don't appear to have a significant preference. All animals, then, fall somewhere along this line, depending upon the relative amounts of plant and animal matter in their diet.

Robins are essentially carnivorous and eat a variety of worms, insects and other invertebrates during the warmer seasons of the year. In winter, when these small animals are less abundant, robins eat berries and other fruits.

If you have a question about Pennsylvania's wild heritage, send it to Mr. OWL, Game News, PGC, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

A Vanishing Act

I WAS SITTING against a tree on the ridge top, enjoying the late afternoon sunshine, when he appeared. I rose to meet him, brushing the pine needles from my pants.

"I have bad news," he said.

"I know the bad news," I replied, smiling. "Your drive didn't chase out any deer."

"No, it's not that . . ." he said, reluctant to continue. "It's about this place we're hunting. Don't get too attached to it. We're not going to be able to hunt it anymore."

"What do you mean?" I cried. "Why can't we hunt here? We've always hunted here."

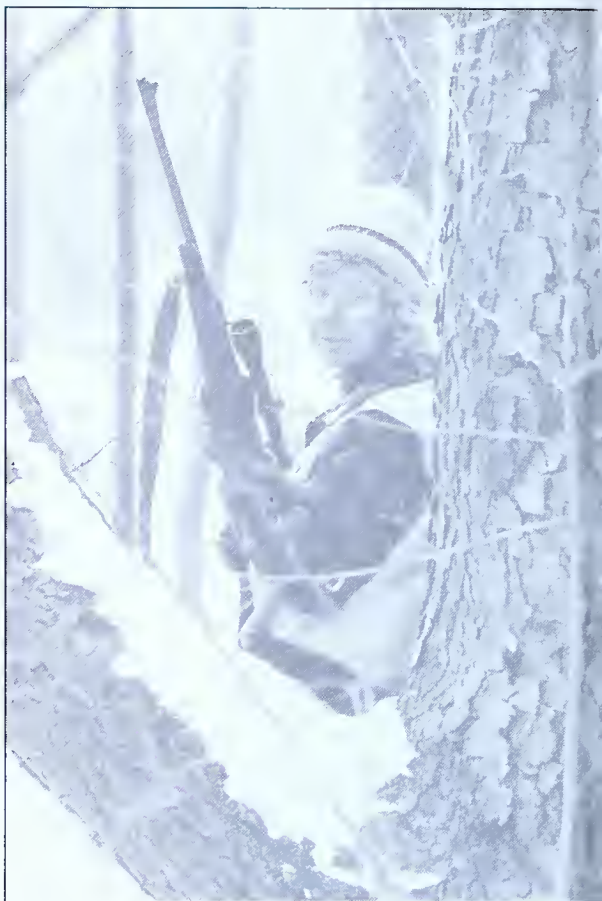
"When I crossed the hilltop," he continued, "some guys pulled up in a pickup and then started a deer drive the other way. One came toward me and I walked over to see how they were doing. I sort of wondered, though, when he didn't even crack a smile.

"The man asked me what I was doing and I told him I'd gotten my buck and was putting on a drive to you. Then he said, 'Don't count on hunting here next year. The guys from my club have banded with the club in the next valley and we got the lease from the timber company. We'll be posting all this land.'"

"What'd you say then?"

"I was shocked. That's hardly the reception one usually gets when greeting another hunter. I didn't say much at all, and the guy just turned and left."

I looked past him into the distance across the valley, the afternoon sun turning the gray tree limbs to gold, and blinked back the tears. This was a view I loved, a special spot atop the mountain that I climbed to each season, as much to gaze at the scenery as to find a buck. It was a place I thought of often through the year. Now, because a handful of people wanted to stake a claim to the area, to make sure neither I nor anyone else could shoot a deer that might be theirs, I could never come back again.



THOSE WHO POST land for selfish reasons are destroying hunting, Steiner says. As available land diminishes, so do the opportunities to pursue the sport; veteran hunters will drop out and new folks won't take it up. And when the ranks shrink, few will be left to protect our hunting heritage.

"Let's go home," I stammered. "Now."

"You're not going to hunt until quitting time?" he asked. I just shook my head and walked in front, so he wouldn't see the tears. I guess he understood, because he didn't press me any further.

I was quiet on the trip home, brooding and resentful. Why, I wondered. The timber company land had been open to everyone for years, and I thought we had all hunted it together amicably. Why was the presence of other hunters, like myself, now so distasteful to that man and his club mem-

ber buddies that they wanted to keep us out?

I knew that overcrowding wasn't a problem because I rarely saw anyone else on the mountaintop. Were these club members so immature as to think that excluding everyone else would guarantee them a deer, or magically make them better hunters? Was it really so offensive to see someone else successful, or to greet another hunter in the course of a day?

I knew I was wrong to take the posting as a personal affront, but then again, it was. "Keep out. This means you. We don't want you on our land, Linda Steiner." That wasn't exactly the way the signs would read, I knew, but that was what they'd mean to me. What was wrong with these people? Had they never learned to share? Are they so insecure that they can't stand the fact that someone else might tag a deer that they covet?

I thought about all the things that could have been said to the man my friend encountered. I'd like to have told him what I thought of him and his selfishness. But then barbs glance off a lot of people. That man obviously had the means to do what he liked. There was nothing much I could do, I realized, other than give some relief to my feelings by writing this.

But my disappointment was for more than myself alone. I'd like to have scolded the man about what he was doing to the future of the sport he supposedly loved. More than any anti-hunter out there, people who post for greed could be destroying hunting. Such people obviously don't love the sport for itself or want to see the tradition continue. They only love their own hunting, and, it appears, would rather no one else was allowed to do it. At least they're not going to provide any land on which the rest of us can hunt.

I've always been able to sympathize with landowners who had real problems—damage to fields, fences, littering. Even so, I've wished more of them would get in touch with local sportsmen's clubs and work out a solution.

Another View...

by Linda Steiner

The knee-jerk reaction of posting immediately, when emotions are high, keeps out the good guys with the bad, and solves little.

But I could never understand gaining control of acreage and posting it so it could be kept all to oneself. That sounds like simple selfishness. If you were on the outside as I am, looking in, how would you feel? "Do unto others" has a boomerang effect.

With more and more land being posted against trespass, I worry about the future of hunting. Perhaps someday only public land will be left to those who can't afford or don't want to lock up land for ourselves. I fret about people giving up the sport because of that. After all, when the limited public land becomes overcrowded, and the rest of hunting is held privately, why bother?

If hunters' numbers drop, I can envision the next step. When misguided anti-hunters beat on the door, there won't be enough hunters left to keep them out, no matter how wrong they are. If you're excluding other hunters from land because you're jealous they might get a deer instead of you, you won't have to wonder why there's no one left to help fight the anti-hunting sentiment. They can no longer hunt, so why should they care?

Luckily, this scenario hasn't happened . . . yet. But there is a worrisome trend. Fewer young people are entering the outdoor sports, including hunting, trapping and shooting. There are many reasons for this, but certainly one must be the proliferation of the posted sign. If these future decision-makers are not given the chance to be on your side, if

IT'S THE LAW



Question

If I come upon a roadkilled buck or find a dead one in the woods, may I take its antlers?

Answer

No. It's against the law to take possession of deer antlers under those circumstances. It's permissible to possess only those antlers legally obtained while hunting or purchased.

you deny young people the opportunity to appreciate hunting and the outdoors by taking away the land they need, then you're as much the enemy of your favorite sport as anyone carrying a placard.

One bright light is that the scene I recounted in the beginning didn't take place here in Pennsylvania. It was in New York state. When I travel to another state to hunt, it's as an average Joe (or Joan?). So I know what trying to find a place to hunt is like. New York is a beautiful state, but most of the private

property I've seen is posted up tight. The timber company land that I can't go back to was one of the last non-public acreages I'd been able to find. And, to my mind, it's been taken away for all the wrong reasons.

I like to believe the best of people. I always have. Even at 40, I suppose I'm still naive. I've heard it said that we learn everything we need to know about life in kindergarten, including how to share. Some people, including some hunters, even flunked that grade.

If I have one underlying reason for writing this, it is the hope that somewhere, someone will read my column and reconsider his actions. Signs won't go up, or, more of a miracle, signs will come down. But then again, I admit I'm naive. I was taught that "mine, mine, mine" is a discordant sound. "Ours" has a more generous ring.

But if my words have no effect on those with the power to post or not to post, the only recourse the rest of us have is to get more land into public ownership. I know this means making money available for property purchase. I would gladly pay higher fees, taxes, or make donations if these funds could guarantee "forever" access. I know I can't stand too many more, "I have some bad news for you" statements at the end of deer drives. Not when they're about the land I'm hunting, instead of just the buck that went the other way.



ED and "TINK" REISH, recently received a Conservation Edition of the Game Commission's 1990 Working Together for Wildlife Print, in appreciation for their outstanding efforts to rehabilitate an injured bobcat. It took them four months, and a great deal of assistance from the Loyalsock Animal Hospital and the University of Pennsylvania, but Ed and Tink rehabilitated a bobcat that had suffered two broken hind legs. The animal was released back into the wild last January, after being fitted with a radio transmitter.

SEVERAL YEARS ago a new form of outdoor recreation appeared along the West Coast. California saw this trend begin, and then spread across the country. More recently the rage has reached Europe and other fashionable points around the globe.

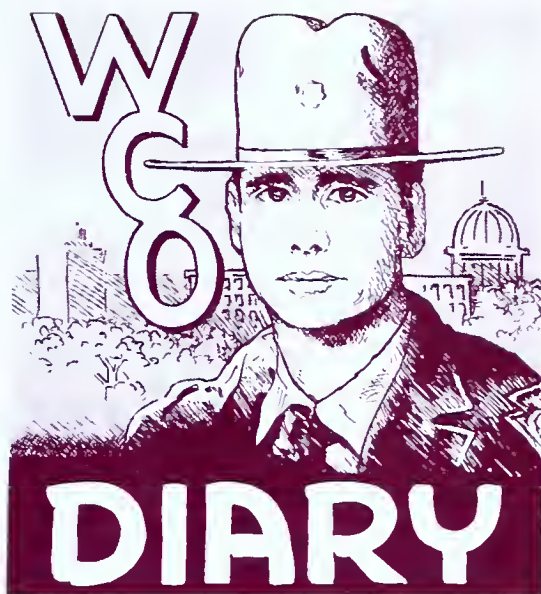
Mountain bicycling, a wholesome outdoor activity, enjoys an almost faddish following of devotees. While nonexistent a few short years ago, these specialized two-wheeled, pedal-powered machines are now quite common along trailheads and on mountain roads here in Pennsylvania. Remotely resembling the old cruiser-style bikes, these workhorses are designed with beefy frames; gnarly, ground hugging tires; straight, sure-control handlebars; and a host of other high-tech components and gears to tame the most formidable inclines.

Recently, this fun machine has been adopted for more utilitarian uses, notably law enforcement. Police departments in Seattle, Fort Worth, Boston and others are touting their two-wheeled patrols. Quiet and efficient, these police bike squads are replacing many beats previously walked by "flat foots" in and about urban/metropolitan areas.

Patrolling mountainous terrain is commonplace to many state wildlife departments, so it's no surprise that mountain bicycles quickly found a home with agencies across the nation. Here in the Keystone State, several WCOs have added back-country bikes to their inventories and regularly pedal instead of walk trails and woodland roads. Even the Fish Commission has issued mountain bikes to several of its officers. Areas closed to motorized travel and remote trails can now be much more efficiently patrolled. History, it seems, has come full circle, with mountain bikes replacing the trusty steeds ridden by officers of yesteryear.

This month marks my pedaling debut as I, too, begin mountain bike patrols of game land trails and mountain paths. While actually a birthday gift from my wife and family, I knew my bike would be used more for work than recreation.

To minimize joking comments from fellow officers and the public, foresight guided me to wear my skin-tight padded cycling shorts underneath my uniform. I still get kidded about my helmet and fashionable sunglasses but, overall, public feedback from my cycling efforts has been positive. Hunters and other out-



**By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County**

doorsmen I've encountered agree on the speed and stealth such a bicycle offers. I'm looking forward to a long and prosperous union with my bike and expect more officers around the state to soon join this growing fraternity.

AUGUST 3—As summer moves ever closer toward fall, my activities are planned to accommodate the busiest time of a WCO's year. With hunting seasons only a few weeks away, Hunter-Trap-Per Education courses will soon be offered. I meet with my district's hunter-ed coordinator and longtime deputy, Larry Mummert, to finalize plans for the dozen courses we'll offer this fall.

Larry's enthusiasm as a deputy—and for the Commission—has carried over to his sincere interest in our agency's program to train first-time hunters and trappers. Larry expertly administers the planning, paperwork and other details associated with these classes. His volunteer efforts allow me to focus on the many other responsibilities I have leading up to the major hunting seasons.

After completing last-minute details, I patrol SGL 246 and the area around Middletown. Later, I move to Fishing Creek Valley, where I notice a vehicle bouncing along a power line right-of-way. It's almost midnight, so I decide to investigate.

While easing my patrol vehicle onto the

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; North-east, 1-800-228-0789; and South-east, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

utility road, I notice I've been spotted as the vehicle begins to turn around. I switch on my red light and attempt to close the distance between me and the now rapidly disappearing lights. Given the distance, I can identify the fleeing silhouette only as a large four-wheel-drive with a "jacked-up" suspension and large tires. I engage my newly installed siren and the chase is on.

Just as quickly as the pursuit started, it ended. The heat of the summer has dried the road to a fine powder and I'm left sitting on the power line, blinded by a huge cloud of dust.

Not to be outdone like the robust sheriff in a "Smokey and the Bandit" movie, I have an alternate plan. I realize the fleeing ridge runner cannot escape over the mountain because a rock-strewn outcropping and a gate block the road ahead. Confidently, I sit and wait for the dust to settle, expecting to see taillights appear through the cloud at any moment. As the dust settles, I watch as the mountain ridge takes shape in front of me and the stars once again twinkle on the horizon. But no taillights. Hopping out of my 4WD in disbelief, I listen for the telltale sound of an idling engine.

Nothing. Just the peaceful sounds of crickets and tree frogs singing an evening serenade.

During the heat of the chase, I didn't have time to ponder the events, but now as I wait for some sign of the vehicle's whereabouts, I begin to wonder what the occupant or occupants were doing here. The deputies have found several deer

carcasses along this right-of-way in the past, and I begin to think that this may be the start of a long and interesting night.

I summon Deputy Bob Schmitt for assistance. While waiting for his arrival I continue to watch the mountainside and listen for any sounds of what I'm now considering suspects. I refine my plan. As I slowly wind my way toward the top and, I hope, flush the suspects Bob will block the roadway at the bottom of the mountain. I'm worried that the guys might slip by me—there are several small side trails branching off of the power line that quickly fade into foot paths. I can just imagine the vehicle parked on one of those trails, with the occupants waiting for me to drive past and allow an escape.

Soon Bob arrives and I brief him of the episode and the plan. Twenty minutes later I'm sitting at the top of the mountain by the securely locked gate in total disbelief. The vehicle has vanished and suddenly I do feel like the dim-witted cinema sheriff.

When I radio Bob with my findings—or, more appropriately, lack of findings—he offers a hunch. Bob feels several of the trails may be driveable, so off we go.

Sure enough, one trail leads to a camp. Bob drives around and meets me. As I open my door, out of nowhere jumps a guy ranting and raving about trespassing. He continues his tirade and threatens to shoot us if we don't leave.

Trying my best to calm him I quickly scan the area for a vehicle matching the one driven by our fleeing suspect. Judging by this fellow's reaction to our presence, I'm certain we're on the right trail.

It's obvious the guy's been drinking, and any attempt to rationalize with him is useless. Bob and I manage to keep him under control long enough to locate a hopped-up 4WD parked in a shed. It's covered with fine dust, but enough time has passed for the engine to cool. Despite my best efforts, I can't talk this fellow into admitting any knowledge of the chase or any wrongdoing. Without any evidence or admissions, we have no choice but to leave. I'll continue my investigation in the morning, when daylight may reveal additional clues.

AUGUST 4—Bob Schmitt and I again team up to continue our investigation, but before we can begin, another matter draws our attention.

I had been receiving reports about an

apartment tenant in Harrisburg who had been live-trapping nuisance squirrels in his backyard. Rather than relocating the squirrels where they would cause no problems, he allegedly had been killing and eating them. This problem has been compounded by neighbors' complaints about the activity.

We drop by and have a chat with the man, ultimately reaching an understanding. Within certain guidelines, the law allows property owners to remove nuisance animals, but they aren't permitted to kill the animals for consumption outside of the regular hunting seasons.

With that urban matter behind us, we turn our attention to the investigation of the previous night's episode. After a few hours of door knocking, interviews and poking about the brush, we fail to uncover any additional evidence or clues as to the identity of our suspects and what they may have been doing.

We complete the evening with a stint of night patrol in the Derry Township area.

AUGUST 10—Bouncing along, ducking limbs and dodging rocks and gullies, I cruise the footpaths and logging trails on Blue Mountain in West Hanover Township. This is a shakedown journey with my patrol gear and mountain bike. I'm pleased at the amount of ground I can cover with amazing speed and stealth. With this added mobility, I uncover hollows and locate ridges I never knew existed. I bubble with enthusiasm as mile after mile passes beneath my pedals. I eagerly anticipate the upcoming hunting seasons and my new potential.

After cooling off and freshening up, I drop by on our first Hunter-Trapper Education course of the season. The large audience's attention is riveted on the projection screen as the instructors cover the basics of safe firearms handling. Given the expert and enthusiastic instructors I have here, I frequently find myself offering only supplemental instruction at many of our courses.

I finish the night with another patrol hitch in Derry Township.

AUGUST 15—After a day of preparation, the morning finds me in the heart of northern Dauphin County with neighboring officer Scott Bills. We have the pleasure of working with 35 youths from south-central Pennsylvania who have enrolled in a week-long conservation camp spon-

sored by the Dauphin County Federation of Sportsmen's Clubs. Throughout the week, activities center on hands-on conservation projects ranging from stream improvement to wildlife habitat management and evaluation.

Scott and I guide the group as they learn about cavity nesters, particularly bluebirds. Scott is an accomplished birder and has much insight into our state's avian inhabitants. After an instruction session, the kids grab their hammers and nails, and each begins to build his own bluebird nest box. Upon completion, the group selects suitable locations around the camp for each box. They then sketched a map, establishing the camp's first bluebird trail.

Despite the scorching sun, everyone enjoys the outing, and a new awareness and appreciation for cavity nesting birds and mammals is fostered. The group, we hope, will serve as a seed that will grow and spread this new interest and talents to friends and neighbors.

AUGUST 16—The weather has been especially hot and muggy, so I'm quite surprised to learn of a poaching incident that had occurred during the wee hours of the night. Cool weather—and an unwritten poachers' code—usually limit nighttime gunning for deer to months that have the letter "R" in them. Apparently the culprits aren't familiar with this old rule. Instead, the opportunity presented itself, and the shooters took advantage of the offering.

Around 3:30 a.m. the residents at the eastern end of Fishing Creek Valley were startled from their slumber by a loud rifle blast. Sure enough, as they peeked out their windows, a dim light glowed from a vehicle parked in the field across the road. When one of the residents turned on an outside light for a better look, the shooters got cold feet, jumped back into their compact truck, and sped off into the night.

When deputies Larry McCarter and Bob Schmitt arrived, the suspects were long gone, but they left their quarry in their wake. A trophy 8-point, sporting large velvety antlers, lay sprawled in the grassy field. A well-placed neck shot verified that this was the target of our outlaws.

Unfortunately, no slug, empty casings, or other bits of evidence were found. Additionally, none of the witnesses was

able to identify the truck involved, other than by its small size. This has all of the ingredients of real whodunit, even for Sherlock Holmes. We'll continue our probe and hope for a stroke of good fortune along the way.

AUGUST 19—The piercing noonday sun draws a bead of sweat from the competitor's brow. Gnats buzz incessantly about his face and eyes. His gaze, however, remains riveted to the front sight of his revolver. Like a well-tuned machine, the contestant methodically squeezes off round after round from each of the required positions. The timekeeper's clock counts down the precious remaining seconds as the competitor finishes the course of fire. Squinting down range through the rippling heat waves rising from the hot earth, he's delighted to find all of his rounds neatly centered in the X-ring. Nothing less will do if he expects to win the event.

Today marks the agency's statewide revolver match, held at Scotia Range in Centre County. WCOs and deputies from across the commonwealth have practiced diligently for this event. All the talking stops; the proof of one's prowess is literally placed on the firing line. Commission officers have long enjoyed the reputation of being proficient marksmen, and the keen competition has elevated their overall performances.

Recognition is awarded to individual high scorers for both WCOs and deputies, as well as high team categories for deputies. Lower Dauphin County deputies are returning champions anxious to defend their winning team title from last year. I tag along, hoping to save face in the salaried officer's division.

The Commission will later select a team of the best combat marksmen to represent the agency at the national police competition in Mississippi later in the year. Needless to say, before the sun sets, some outstanding shooters step to the line. My district's contingent and I find this year's event to be quite humbling. As we shake our heads in disbelief, we begin

making plans for next year's comeback.

AUGUST 24—The Harrisburg area plays host to a variety of sporting events and shows. For the next several days the deputies and I will man an exhibit at the Keystone Deer Classic held in the Farm Show complex. Sponsored by the Pennsylvania Federation of Sportsmen's Clubs, the event was recently moved from the Philadelphia area to our district.

From deer hunting seminars to big buck contests, the event showcases our state animal, the white-tailed deer, and is a primer for the upcoming seasons. Deer hunting enthusiasts from across the Eastern Seaboard savor the show and its various exhibits. We enjoy the opportunity to once again meet with all the enthusiastic sportsmen and women.

AUGUST 28—With three courses already under our belts, I swing by the Penn Harris Gun Club in Steelton for another hunter-ed course this month. Our classes will be a weekly offering now through mid-October.

I'm keenly interested in monitoring a new aspect of our courses, the field exercise. Students are taken outdoors and placed in various situations and scenarios to test their knowledge of concepts introduced to them earlier in the classroom. After providing a portion of the instruction, I turn the class over to my regular instructor staff and head out for some night patrol.

With fall on our heels, law enforcement work begins an upswing and soon will occupy most of my time. Tonight provides evidence to the fact that the public's interest in wildlife is also increasing. Several spotlighting violations were encountered by the deputies and myself, most of which were for spotlighting after hours.

Another busy month is behind us, but the tempo will increase. September and the months that follow mark a dramatic change in a WCO's life. Join me next month for a look at my more recognizable tasks as a "game warden" in this urban/suburban district.

I'VE NEVER seen a Florida panther, although I may have come close. My wife and I were in Everglades National Park. We stopped at the visitors center inside the Park boundary, and the place was buzzing. A panther had just walked across the road, in broad daylight and in full view of some tourists. I wondered if those people knew how lucky they were.

The Florida panther is a subspecies of cougar. It is one of the most severely endangered mammals in the world. Only 30 to 50 survive, in the wild lands south of Florida's Lake Okeechobee, a subtropical stronghold that's eroding in the face of highway construction, urban expansion and intensive agriculture. Inbreeding, reproductive problems and lowered disease resistance have combined with the loss of habitat to make the panther's future grim.

The Florida panther is *Felis concolor coryi*. Adapted to the hot, damp, thickly vegetated South, it is darker, has longer legs and smaller feet, and is lighter in weight than the seven other cougar subspecies in North America.

Although once found from Arkansas to South Carolina to Florida, the panther in recent decades has been pushed into some 5,000 square miles centered on Everglades National Park, Big Cypress National Preserve, and the newly created Florida Panther National Wildlife Refuge.

The cat also ranges north into extensive tracts of private land that are probably the best habitat in its range. That land, however, may soon be lost to panthers and other wild species because it is increasingly being developed.

The panther is the top predator in the Everglades Physiographic Region, which has been described by the historian Marjory Stoneman Douglas as a "river of grass": at times dry, at times calf-deep in water, a broad, damp prairie of saw grass studded with hammocks of hardwoods and tropical plants, and bounded by higher, drier pinelands. Panthers rest by day in the pines or the shady hammocks, and emerge at night to stalk the swamps



Chuck Fergus

and grasslands for deer, wild hogs, raccoons and armadillos.

To preserve the panther's south Florida habitat, federal and state agencies have bought many acres of private land. To protect the animal itself, which is on the federal Endangered Species List, the speed limit drops to 45 mph at night on busy Interstate 75 from Miami to Naples—"Alligator Alley," cutting through the heart of the panther's last stronghold. Special underpasses have been built into the road so panthers and their prey can cross safely.

Biologists have attached radio collars to panthers, and have learned much about the population's movement, age structure and social behavior. Periodically the collared cats are treed by hounds, anesthetized, lowered to the ground with ropes, and dosed with vitamins and immunized against diseases. Hair and skin samples, feces, blood, saliva and semen are taken. Genetic analysis of these materials has shown that the panther is nearing extinction, largely because of inbreeding within the dwindling population.

In almost all Florida panthers, inbreeding expresses itself as abnormal physical traits. Defective vertebrae cause a 90° kink near the tip of the tail. A "cowlick" whorl of fur appears on the back. And males show cryptorchism (a condition in which one testicle fails to descend into the scrotum) and have

The *Wingless Crow* is a collection of 33 "Thornapples" columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

more than 90 percent defective sperm. Equally dangerous are factors less easily documented: lessened fecundity, birth defects, higher newborn death rates, slower growth and lower disease resistance.

So pernicious are the effects of inbreeding that even if their habitat is preserved and improved, the remaining Florida panthers may slip into extinction unless a new, major step is taken.

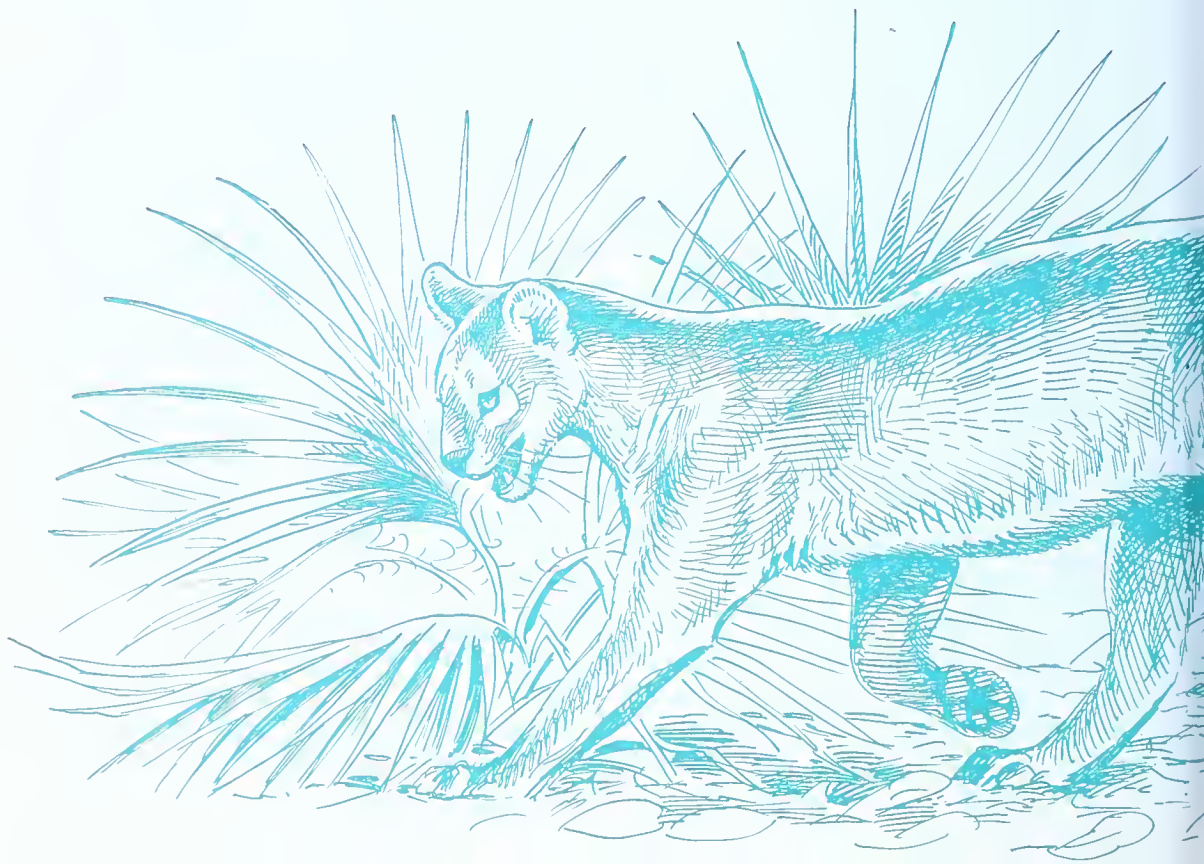
That step is to put panthers in zoos, and breed them.

Last February biologists captured four kittens, the first of up to 50 panthers to be taken over the next three to six years. Most if not all of the captives will be kittens; experts believe that re-

moving kittens will not harm the wild population, because the habitat is already at carrying capacity and there is no open territory for young panthers to expand into.

Other potential captives include females that have never bred (perhaps due to a surgically correctible condition) and young "floater" males who must wander about looking for unoccupied territories risking death on the highways, from poachers, or from fights with dominant males.

The ultimate goal of the Florida Panther Recovery Program (an interagency effort on the part of the U.S. Fish and Wildlife Service, National Park Service, Florida Game and Fresh Water Fish Commission, and Florida Department of Natural Resources) is to have 130 breeding animals in a combination of wild and captive environments by the year 2000, and 500 by 2010. According to the agencies' calculations, meeting those goals will assure a 95 percent probability of the panther surviving in the wild for at least 100 years, while holding on to 90 percent of its current genetic diversity.



As might be imagined, captive breeding is a controversial step. An animal-rights group sought to block the program, and withdrew its suit only after the Fish and Wildlife Service agreed to allow capturing only kittens and not adults. A series of public meetings in Florida spawned heated debate and a flood of written comments. Most mainstream conservation organizations, including the Wilderness Society, the National Audubon Society and the Sierra Club, favored captive breeding.

But captive breeding is not a terminal step. Wildlife managers don't want a zoo population simply as insurance against an epidemic or a Force-5 hurricane leveling the Everglades. A major goal of the Panther Recovery Program is to someday reintroduce panthers within their historic range.

And therein lies the real problem: Will enough of wild Florida be left by 2010 for biologists to release panthers bred in captivity?

Since World War II, Florida's human population has boomed. The 1970s and 1980s saw a net gain of almost 900 new residents per day, with another 40 mil-

lion tourists visiting the state each year. From 1980 to 1988, the population grew by 26 percent. (In comparison, Pennsylvania's population grew by 1 percent.) Where once was saw grass or pines or palmettoes is now, all too often, roads or shopping malls or office buildings or condos or tomato farms.

Carl Hiaasen is a columnist for the *Miami Herald* and one of few Floridians to have voiced opposition to unbridled growth in the Sunshine State. "We just have too many people in Florida," he says in an article in *Amtrak Express*. "Putting too many organisms in too small a place destroys it. It's the oldest law of biology, and we're ignoring it."

While most Floridians like the notion of having panthers around (and have even named the panther Florida's state mammal), it is not apparent that they will make the sacrifices necessary to keep it. According to Hiaasen, development has become "even more exaggerated now because of the rise of environmentalism. Now there's a mad rush. People want to get their piece of Florida before it's gone."

Big business is partly to blame. Pan-





thers are not deemed part of the profit that must be shown on the bottom line. Following freezes in the north of the state, citrus growers are moving south—and orange groves are not wildlife habitat.

Corporate Fears

At least one corporation, with thousands of undeveloped acres, has barred biologists from looking for panthers on its land. The fear is that if panthers are found, development may be held back: The federal Endangered Species Act empowers the Fish and Wildlife Service to protect habitat being used by an endangered species, as well as members of the species itself.

It is unrealistic to point only at Florida as a place where people have appropriated wildlife habitat. Worldwide, the human organism, in its quest for food and comfort, pleasure and luxury, usurps—almost without thinking—the space and resources needed by other forms of life. But Florida provides an

extreme case of a human population growing uncontrollably and out of balance with the land. The Florida panther, whose numbers have decreased so steadily over the last century, is a classic example of a large predator pushed to the brink by loss of habitat.

By the time this column is printed, I will have spent a week in the Everglades interviewing scientists and wildlife managers working to keep the Florida panther alive—men and women who are buying and setting aside the acres of prairie and swamp and pine-land; burning off woody cover to improve the panthers' food supply by stimulating the growth of grass and increasing the number of deer; charting, from the air, the movements of radio-collared panthers; and capturing the kittens of this tawny, furtive cat to be bred in captivity.

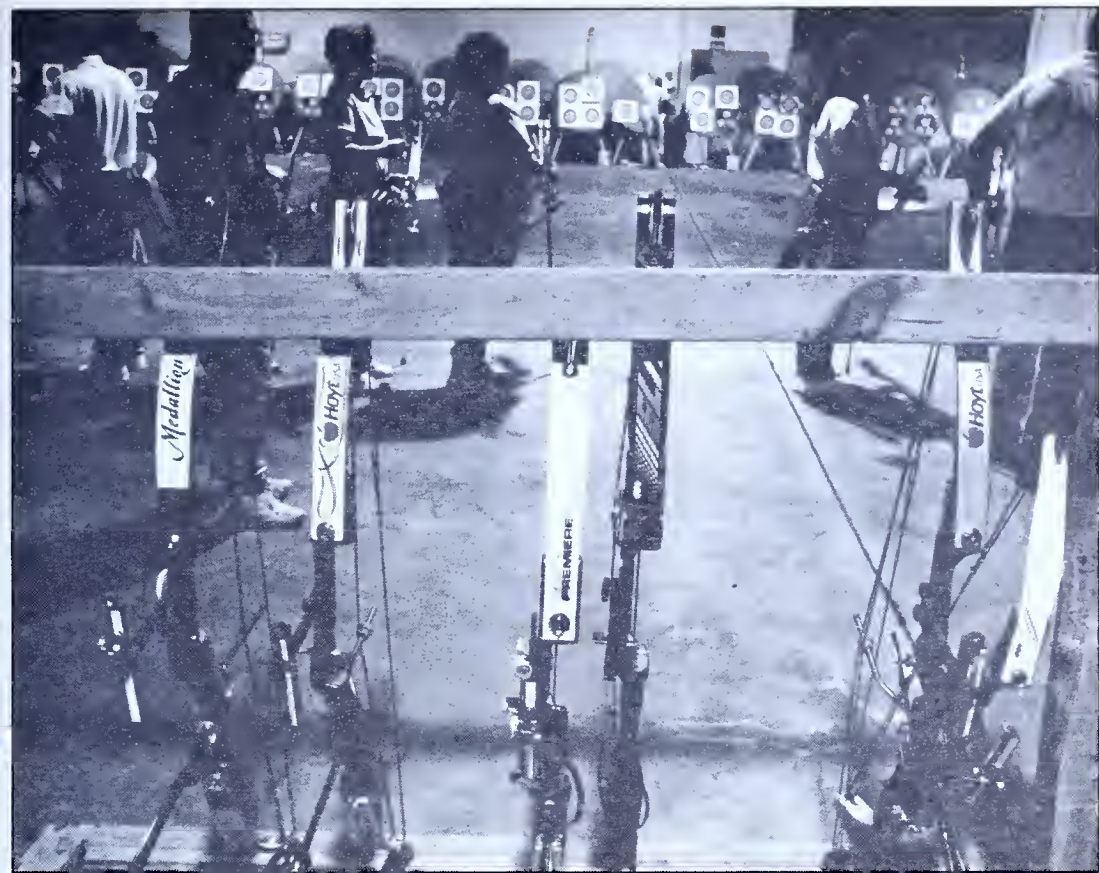
I hope to see a wild panther, although the chance of that is slim to nonexistent.

I hope, more fervently and probably no more realistically, that attitudes will change and that people will stop the relentless taking of other creatures' living spaces. The Florida panther is sometimes called a "flagship species"—the most visible and dramatic creature in its ecosystem. If the panther cannot be saved, the priceless wildlife resources of this tropical tip of America may be lost forever.

On March 8, 1991, Science published a major report on the Florida panther by Chuck Fergus.

Upcoming Attractions at Middle Creek

Upcoming lectures at Middle Creek include "Bobcat Natural History and Research," by PGC Biologist Jack Giles, August 7 & 8; "Northern Adventure—Life Among the Quebec Inuits," by educator and outdoor writer Kermit Henning, August 21 & 22; and "The Magic of Deer Antlers," by WCO Dave Koppenhaver, September 4 & 5. All lectures begin at 7:30 p.m. Also at Middle Creek this month is the increasingly popular Middle Creek Wildlife Art Show. Show hours are noon to 8 p.m. on August 9, 9 a.m. to 8 p.m. on August 10, and 9 a.m. to 5 p.m. on August 11. Admission is free.



PENNSYLVANIA STATE Archery Association's indoor championships annually attract more than 1,000 archers to the Farm Show complex in Harrisburg. The competitors vie for several category titles, as well as the overall state championship. Shooters are grouped according to ability, age, sex and type of equipment.

Testing time . . .

Indoors With PSAA

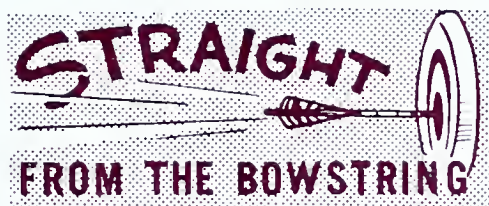
By Keith C. Schuyler

IT LOOKED like the usual confusion that comes with jamming more than 1,000 archers, workers and spectators together for the Pennsylvania State Archery Association Annual Indoor Championships. Only this time, the 30th such event, there was a difference on the opening day of shooting.

The northwest corner building of State Farm Show Building Complex was filled to capacity as has been customary, as some 1,100 archers assembled for the first day team shoots. But gone this year were the long registra-

tion lines. Each archer went directly to a target assigned by mail, while committee people went up and down the lines of shooters to pick up class cards before each 600 round.

In this manner, a process that had been seemingly total confusion evolved



into an orderly exchange as archers completed three rounds right on schedule. None took more than three hours and 20 minutes, and about 1½ hours were trimmed from the time it used to take for all three.

I won't begin to try to mention everybody who worked to make this year's championship a success, at risk of missing some deserving helpers, but focus centers around president Richard Goss, and his wife, Barbara, serving her first year as executive secretary. Perhaps she said it best, "This tournament was truly a team effort and was a success thanks to the hard work and the support of the committee." It was the Goss's Lewistown address, however, and their telephone number, that were targets in the weeks before the events.

The cooperation and response among the participants were excellent, especially considering the major changes made and the number of people involved. The same was true on the less hectic second day when some 720 contestants shot, in two shifts, for individual scores. Rick Goss expressed his only concern for tournament's future. "The only problem I see now is the possible need to obtain a larger site within the complex, and at a larger cost."

All this adds up to good news for the PSAA, celebrating its 60th year since incorporation in 1931. The number of clubs in the state archery organization's 1991 yearbook stands at 82, down from the 100 or so that belonged some years ago, but up seven from 1990. The previous individual memberships on the first day of the championships this year stood at 1,428, equal to the final total for 1990.

At one time, when both the national and state championships were shot on the same weekend, the entire main exhibition building at the Harrisburg complex was reserved for archery. When the national was moved out of state, smaller quarters were obtained for the state event. Growing popularity of this event, however, may eventually force a change for more space.

This year's tournament brought back

memories of when I was on a Berwick team entered in the Hunter category. It was the first ever for team championships, and we won because there was no competition—that year. At that time we couldn't imagine the sights and stabilizers and other assists yet to come. We just pulled up and prayed, and took our best shots.

At a time when participation in outdoor shooting events has fallen off, partly because of backyard and commercial competition, indoor shooting appears to have a solid future. One factor encouraging competition is the increase in indoor ranges and the establishment of winter leagues that offer area contests. Local high scorers are then tempted to test their mettle against the best from other areas of the state at the PSAA Championships. Those who do well at that level may be encouraged to enter national competition.

Outdoor shooting has other fair-weather distractions such as swimming, fishing, boating and vacations, plus the uncertainty of weather conditions and even the annoying interference of insects. Although shooting under field conditions is far better practice for hunters, because it more accurately simulates the sport, punching paper targets on the outdoor scene has lost some of its appeal. Field shooting, however, is undergoing a resurgence through the introduction of two- and three-dimensional targets. We'll take a look at those in next month's column, along with the sponsoring organization, the International Bowhunters Organization.

Certainly not everyone attains the top score in any competition. And in archery, the highest score has most importance only among competitors using similar equipment. Many archers don't have the desire or the financial or physical ability to compete against shooters equipped with the most modern and sophisticated bows and accessories.

The extreme let off of compounds allows bows 70 pounds and up to be held comfortably at 35 percent or less



ASSOCIATION PRESIDENT Richard Goss and his wife, Barbara, who is in her first year as executive secretary, deserve a great deal of credit for running the championships. Major changes to the registration process smoothed the operation and made for a less hectic, and therefore more enjoyable, tournament.

for those strong enough to draw through the top weight. Because of such inequities there are numerous classes and divisions to enter in which the archer shoots against his or her peers. A win in any division often holds as much importance for the individual as those in any other.

Shooters have a choice in the following Target Divisions: Freestyle, Barebow, Bowhunter (Freestyle or Barebow), Unlimited, Longbow, Youth, and Crossbow. Within those divisions are classes for men, women and youths. Youths are broken down into Intermediates, under 18 years of age; Juniors, under 15; and Cadets, under 12.

It might seem that the winner of the Unlimited Class, because there are no restrictions on equipment, would always be the top shooter in the tournament, but that is not always the case. Classification is further delineated by proficiency according to AA and A for Unlimited men and women, and Bowhunting; and AA, A, B and C for all other categories except youth, which is broken down into AA and A. Those

classifications represent the biggest major change over the years as proficiency improved with modern equipment and minimum scores for each were increased accordingly.

Two PSAA rounds are recognized for indoor tournament shooting, the Short Round and the Long Round. The Short Round consists of 60 arrows shot from 20 yards at a 40-centimeter, five-color, circular target face. A perfect score is 600. The Long Round consists of 60 arrows shot from 30 yards at a 60-centimeter, five-color, circular target face.

If top scores are identical, the archer with the most 10s is declared the winner. If a tie still exists, the one with the most nines wins. There is provision on the score cards to mark down the number of nines and 10s for such a contingency. If this doesn't break the tie, the best 30 arrows are scored. If the tie still isn't broken, the top archers shoot off, arrow for arrow, until one has a higher score.

At the 1991 indoor shoot, the Short Round was utilized. And two rounds were shot by each contestant. Although

some all-time top records appeared to have been broken or tied at this year's tournament, what appears here is unofficial until approved by the PSAA.

Todd Shultz scored a 567 on one round to beat his own 564 record for Bowhunter Barebow AA set in 1990. In Men's Unlimited AA, Everett LeSueur's 599, shot in 1986, was tied by Thomas L. Weaver, Jr., and Tom Kennedy. Weaver dropped but five points to take the Double Short Round with 1195. It won the President's Trophy for the highest scoring Male, Unlimited. Yet he was only one point ahead of Ken Shannon. Each had a 596 single round, but Weaver's tie for the record gave him the extra point to win the class. Only two points behind him were Tom Kennedy and Chuck Russo in an extremely close match.

Other Close Ones

There were some other close ones. Larry Hillegass edged Ronald Erb in Men's Barebow A by only two points with a 1052 total. In Bowhunter Unlimited, John Bordick won by a single point with an 1158 over Jeff Hockenberry. Only two points separated Joseph Nuzzo and Spenser Irwin as the former won Men's Freestyle in Class B with 1064.

Gregory Schoen, John Ott and Elmer Rhodes were one, two, three with 1160, 1159 and 1158 at the top of Men's Unlimited A Class. In Men's Crossbow, two points made the difference as William Hendershot, with 1186, beat out John Gracey. Another two point win was David Hale with 1119 over James Hackett, Jr., in Men's FITA Freestyle AA. Larry Wise beat out Ronald Walker by but one point in Men's Professional Limited Class with his 1192.

In the Women Unlimited AA Class, it was Stella Devore with an 1165, but one point ahead of Pat Gauger.

For team shoots, only 13 points separated the first three Men's Unlimited Teams as Falcon Archers posted a top 2366, followed by Chieftain Archery Club with 2363 and Butler Archers with 2353. The Falcon team had a 596

by Thomas L. Weaver, Jr.; a 594 by Ronald Lizon; a 594 by Jerry Wingertstahn and a 582 by Stella Devore. Stella beat out four other members to contribute to the winning score. Although there is no limit to participants on a team, only the top four scores count. There were 12 teams competing in the Men's Unlimited Class.

In the Bowhunter Unlimited Team shoot, Falcon Archers were again tops with the help of a 599 by Weaver, who also shot this one along with Jerry Wingertstahn with a 596. Mark Moretti contributed 580 and Ron Lizon had a 578. Total score was 2353. Twelve teams competed in this category.

Next most active group was Men Freestyle with eight entries. Perry County Archers won this one by only 15 points through the efforts of: Kevin Kolak, with 581; Bill Shultz, 573; Jeff Frey, 561; and Lynn Nester, 557. Total, 2272. Butler Archers ranked second with 2257.

Top ladies team in Women Freestyle was Bucks County Fish & Game against three competitors with an aggregate of 2137. Contributing scores were: Betty McDonough, 539; Christy Orso, 538; Donna Fryer, 532; Joyce Johnson, 528.

With 15 typed pages of scores for the championships, it has been possible to hit only the highlights here where competition was closest and there was the most activity. It is a sure bet that everyone attending is keeping up on scores in his or her class or classes.

It is tougher competition with equipment undreamed of when the first championships were held 30 years ago. Bows shooting pencil-sized carbon arrows at more than 300 feet per second by some archers makes it an ever increasing challenge. It is even necessary now to warn such shooters to bring their own backup material for targets to avoid passthroughs.

And yet, there is still something for everybody, regardless of their preference. Mark Gleeson won the Longbow Championship against three competitors with a double short round of 832.



WEIGHING POWDER CHARGES is an important part of reloading, although whether each one should be weighed to the nth degree is a subject of controversy among some hobbyists. Lewis believes beginners should weigh every charge, and those who use measures should check every 10th load.

The Powder Scale

By Don Lewis
Photos by Helen Lewis

I DON'T KNOW if handloading really pays, considering the time involved," a longtime friend informed me. "I spent more than an hour and a half cranking out a box of ammo for my custom 222 varmint rig. Weighing the powder charges really eats up the clock. It seems to take forever for the balance beam on my Pacific scale to stop swinging."

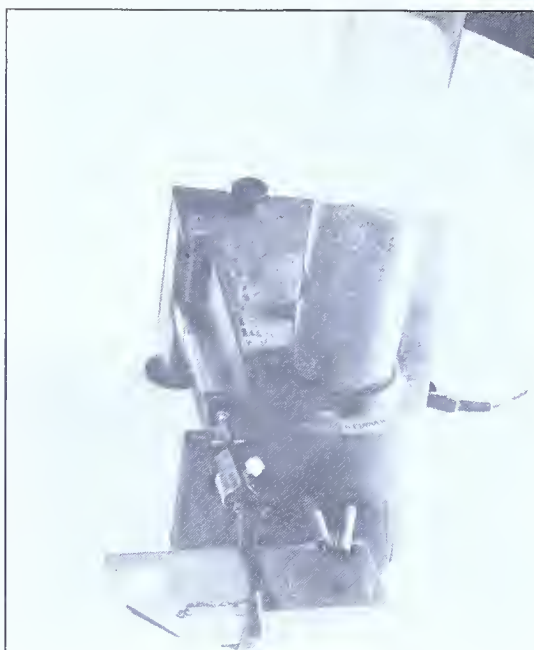
"I'm certainly not a speedster when it comes to handloading, but I can do 20 rounds in a half-hour, complete with full length resizing. Maybe I have a better scale," I said slyly.

"You don't even use a scale most of the time, and I could crank out 20 rounds in 10 minutes if I really believed a powder measure is accurate. Every

powder charge I dump into an empty case is weighed to the nth degree. I'm so fussy that I sometimes cut powder kernels to get the exact weight. It takes a lot of time, but it sure pays off in accuracy."

"I'm not so sure of that," I replied. "My reloads shoot tight groups at 100 yards, and certainly I don't waste time splitting powder kernels. When you come right down to it, many variables





affect accuracy. The powder charge weight is by no means the only important factor. I doubt if a half kernel of powder makes any difference one way or the other.”

This mild argument dates back to the early days of handloading. At that time, few local shooters knew much about the new hobby. Once he bolted a reloading press to a bench, however, it didn't take long for the new handloader to become an expert. It seemed each handloader had his own special load combinations and secret methods for getting super home brewed ammunition.

In all honesty, though, such thoughts were only figments of the imagination. There was nothing really special about the fodder being cranked out. In my own case, other than what I learned from a few magazine articles, my reloading information came from two books: Belding & Mull's 1950 *Hand Book* and a 1950 NRA manual, *Handloading*, prepared and published by Lyman Gun Sight Corporation.

Not long ago, I was testing a new electronic outfit, and I thought of my late friend's Pacific scale. He got interested in reloading about the same time I did, and due to pure stubbornness, he always purchased different equipment

THE AUTOSCALE utilizes two barrels to feed powder into the pan. The fast barrel quickly brings the charge close to the desired weight, then the slow barrel brings the beam to dead center. A sensor stops powder discharge.

than I did. I depended mostly on a Lyman Ideal No. 55 powder measure, but always dreamed of getting a Fairbanks Model 3054 scale. Not good enough for my buddy. He plunked down his money for a Pacific powder and bullet scale.

The Pacific was accurate enough, but had several inherent drawbacks, especially when doing a lot of rounds at one time. It came with a dozen or more weights, ranging from $\frac{1}{10}$ to 20 grains.

The desired weight is placed in the powder pan, and the balance nuts on the beam are moved backward or forward until the beam is level. When the beam is perfectly balanced to coincide with the indicator on the frame, the nuts are locked in place by tightening them against each other. Remove the weights and begin weighing.

It's true this setup is almost fool-proof, but the old Pacific didn't have any means to slow down the oscillations of the beam. Pacific changed this in the mid-1950s and utilized a built-in oil dampener to retard beam oscillations.

One of the prime reasons for using a powder scale is to determine the exact weight desired. Weighing every charge virtually guarantees the same amount of powder is in every case. In the early days of handloading, weighing every charge was considered a fundamental ingredient for accuracy. Some, like the fellow in the opening of this article, carried it to extremes.

A paramount question is, “How accurate is accurate?” A second one would be “Does splitting powder kernels enhance accuracy?” Let's take a quick look at accuracy requirements.

Accuracy is subjective at best. Maybe I can paraphrase the old adage that it's in the eye of the beholder. No matter how it's looked at, accuracy requirements aren't the same for every shooter. Fifty years ago, a half-inch 5-shot group at 100 yards would take home the money. A deer rifle that put five holes

THE LYMAN LE-1000 electric scale has a powder capacity of 1,000 grains and runs off a single 9-volt battery or through an AC adaptor, which is included with each scale. The scale is automatically calibrated by pushing a button.

in a 3-inch bullseye was considered the ultimate in accuracy. How times have changed. Today's benchrest shooter is down to $\frac{2}{10}$ ths, and the big game hunter fully expects his rifle to stay under $1\frac{1}{4}$ inches.

Clearly, competitive accuracy differs from hunting accuracy, and rightfully so. My 308 RSI M-77 Ruger Mannlicher seldom cuts under two inches at the 100-yard mark. That may send cold chills up the spines of a lot of hunters, but I have killed six deer with the outfit, at distances ranging from 35 to 165 yards. I wouldn't have done a bit better with a rifle that was a pure one-holer. Stop and think for a moment; I was shooting at targets (vital zones) that were more than a foot square.

To get the accuracy needed in benchrest competition, the handloader must strive for consistency. In essence, benchrest accuracy is simply duplication. To get all the bullets in one hole



far down the range, each shell must be alike or as nearly as alike as possible. In reality, that's not feasible, if I must be blunt. Over the years I have used a half dozen brands of chronographs, and I have never fired five shots that gave identical velocity readings. In fact, I am very well pleased if I have a plus or minus variation of 15 feet per second.

Back when my friend and I were haggling over proper reloading procedures, we actually thought that the powder

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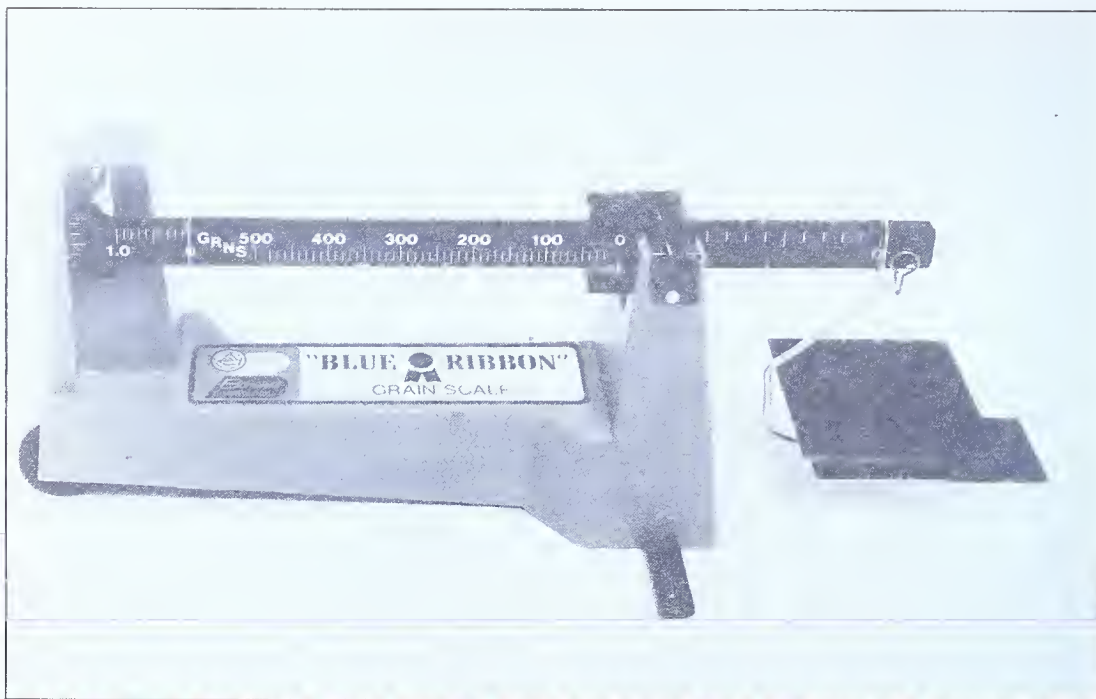
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THE FORSTER/BONANZA "Blue Ribbon" scale has a 511-grain capacity and features three poises on the beam for better accuracy. The center poise measures in 10-grain increments; the right, 1 grain; and the left, $\frac{1}{10}$ th. The dampening system stops the beam from swinging within three seconds.

charge was the main ingredient for accuracy. Chronographs were unheard of on the local level, and gunwriters of that era stressed the importance of exact powder weights. We felt there was a direct correlation between the powder charge and where the bullet impacted on the target.

That's why my friend spent hours weighing every charge right down to a split kernel of powder. When I look back, I realize that a lot of what we thought was absolutely essential was actually a waste of time. But that's the way things were when handloading was in its infancy.

It may be assumed by now that I am against weighing powder charges. That's not the case at all. In fact, I think beginning handloaders should weigh every charge, and those who depend entirely on the powder measure should check at least every 10th charge thrown. I am not a believer in the theory that weighing each powder charge to the exact kernel is a guarantee of accuracy. Inside neck diameter, case thickness, case length, bullet seating, flash hole uniformity—just to name a

few—play important roles on the accuracy stage.

The powder scale is an essential tool, and there's no shortage of high quality units. My first reloading venture was a partnership arrangement with a friend who used a Redding scale. When I started my own shop I had an opportunity to buy a set of Troemner Balances, but, instead I purchased a Herter's scale because it had a built-in oil dampener.

Today's powder scales are more sophisticated than the old balances or free-swinging Pacific-type scales. The Forster/Bonanza Blue Ribbon has a 511-grain capacity and utilizes three "poises" on the beam for better accuracy. For instance, center poise measurement is 10 grains; right poise is 1 grain and far left poise near the beam pointer is $\frac{1}{10}$ th grain. Beam is dampened in three seconds.

Hornady's Deluxe Powder scale has a 500-grain capacity, and has three poises (counterpoises) on the beam. This model has a magnetic damping system, but also incorporates a built-in oil reservoir for those who prefer this method

of dampening. A $\frac{1}{10}$ th over-under scale at the pointer end of the beam is used basically for bullet sorting.

It's claimed that the Lyman Gun Sight Corporation had begun to manufacture reloading equipment by the turn of the century. Known today as Lyman Products, the company is still at it, and offers several top-notch scales. One I particularly like is the Model 1000, which has a whopping capacity of 1,005 grains. Along with magnetic dampening, the 1000 boasts precision-ground knife edges on agate bearings. Its black on white beam markings and positive powder pan positioning make it easy to use. It also comes with an ounce to grain conversion table.

Lyman recently came out with its electronic Model LE: 1000 that has a 1,000-grain capacity. The scale works with a single 9-volt battery or AC power adaptor which is included with each scale. The "push button" automatic calibration feature eliminates the need for calibrating with a screwdriver. A carrying case is optional.

I've gotten a great deal of use from an RCBS 10-10 scale. The model number denotes its capacity of 1,010 grains. Left side of its beam is graduated in 10-grain increments. The right has 1-grain increments, and a micrometer poise divides those into 10ths of a grain. An ounce to grain conversion chart for shotgun reloaders is affixed to the scale.

Redding's No. 2 Master Scale is guaranteed to be accurate to within $\frac{1}{10}$ th grain. Over-under scale permits checking charge variations without moving counterpoises. Capacity is 505 grains. Scale has hardened and honed self-aligning beam bearings for lifetime accuracy.

The Lee Safety Powder scale has a 110-grain capacity. Magnetically dampened approach to weight. Poise notches are more than $\frac{1}{4}$ inch apart, and the pivot is an actual razor edge for greater sensitivity. The beam is made from phenolic resin, which can break but not bend. This means it can't be overstressed and give a wrong reading.

Today, the electronic scale is infiltrat-



ing the market. I have already mentioned Lyman's LE: 1000. RCBS has an easy to read digital readout that provides fast, clear readings of case, bullet or powder charge in grains ranging from zero to 500. The Tare feature allows direct reading of the sample's weight with or without the use of the scale pan. The scale can be used at home or the range. It comes with AC adaptor or can operate on eight AA batteries.

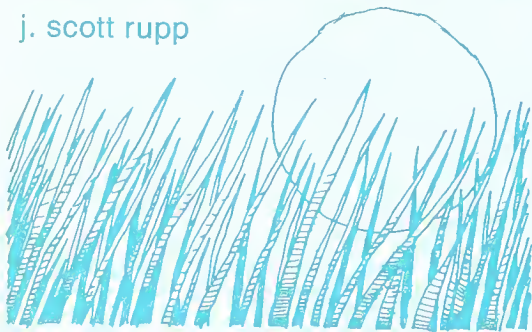
Lately, I've been working with an electronic scale called Autoscale. It incorporates a large powder hopper and dispenses powder into a large pan through two aluminum tubes or barrels that rotate at different speeds. The high speed barrel controls rapid feeding up to 10 grains per second. The final load is controlled by a slow-turning barrel with accuracy plus or minus $\frac{1}{20}$ th of a grain. A 9-volt transformer fits any household receptacle.

Set the desired powder charge weight on the beam to the $\frac{1}{10}$ th grain and press the starter button on top of the case. Powder will immediately begin to flow from the fast barrel, and the scale will stop feeding powder automatically at the correct weight.

Powder scales have certainly been enhanced since the days of the old Pacific scale and Troemner balances. I'm not convinced the modern manually operated scale is more accurate, but it has features that make it easier to use. Electronic scales are expensive, but ideal for the ultra-serious hand-loader. Good advice is to buy the best scale possible.

In the wind

j. scott rupp



Michigan sportsmen recently won a battle to restrict off-road vehicle use on public land. Under a law passed by the state legislature, ORVs will be allowed to operate only on areas posted open to them. An exception was granted for the Upper Peninsula, likely the next conservation campaign for some Michigan outdoorsmen. It's estimated the vehicles caused more than \$1 billion in damage to public forests, and some consider their misuse the state's most serious environmental problem.

Moose populations in northeastern Minnesota have declined 45 percent over the past two years; evidence indicates high infestations of winter ticks are hindering the giant animal's ability to survive. Game officials there were forced to close the upcoming fall hunt in that region of the state.

Rubber asphalt paving made from ground up scrap tires may provide some relief for New York state's landfill problems. Scrap tires take up a great deal of landfill space, and turning them into a useful product will help the state meet its recycling goals. The state's solid waste management agency recommends that 50 percent of annual resurfacing be done with rubber asphalt paving by 1997.

North Dakota's progressive pheasant bag limits, in which hunters may take two cockbirds per day in the first nine days of the season and three per day thereafter, proved successful last year. The goal was to give landowners some relief from a huge influx of sportsmen on opening day and spread hunting pressure over the season. The limit may rise to four cockbirds in the latter part of this fall's season.

Berry-Hill, Ltd., a mail order company, has stopped using polystyrene "peanuts" for packing material, substituting popcorn instead, according to a report in *Pennsylvania Resources*. The company uses six hot-air popcorn poppers to generate enough material. Popcorn packing costs one-fourth less than polystyrene—which is non-biodegradable and harmful to the environment—and consumers can feed it to the birds.

Australia's rabbit plague is back, according to *National Geographic*. It began in 1859 when 13 rabbits were released to breed for hunting; the population skyrocketed to more than 600 million by the '40s. An introduced disease nearly eradicated the rodents, but three wet years have produced enough vegetation to bring them back—200 million strong and rising. Landowners are hunting, poisoning and even dynamiting the pests. On one farm, 60,000 rabbits were killed in a month.

Arkansas game officials are searching for the individual responsible for shooting a man scouting turkeys before spring gobbler season. The man was trying to locate gobblers with a turkey call when the offender, illegally hunting before season, shot him in mistake for game. The shooter fled. The victim was discovered a short time later by other scouts.

Wyoming's Whiskey Basin bighorn sheep herd last winter suffered the state's most serious outbreak of pneumonia. Game officials had been planning to trap and transfer some animals from the basin to supplement other herds, but instead found a number of dead sheep. Biologists estimated the loss at 300 to 400 animals. Hunting license issues in affected areas will drop to compensate for the mortality.

ANSWERS:

- #2: amount of sunlight (or phototropism)
- #6: with brown fur and eyes are opened
- #8: unprotected open areas
- #10: help—they can reach food sources easier



Voluntary Waterfowl Stamp No. 9

Pennsylvania's 1991 waterfowl management stamp, featuring a pair of wigeons by Gerry Putt of Boiling Springs, is the ninth "duck" stamp offered by the Game Commission. Funds derived from stamp and print sales are used for wetland acquisition, habitat development, and waterfowl-related education programs. Stamps cost \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of 10, delivered. For a savings, the cost of five or more 10-stamp sheets, in any combination of years, is \$40 per sheet. The 1989 stamps will be available through December 1991, at which time all remaining supplies will be destroyed.

Stamps are available at the Game Commission Harrisburg headquarters, region offices, Pymatuning and Middle Creek Wildlife Management Areas, and at participating hunting license issuing agents and stamp dealers. A limited edition of signed and numbered fine art prints of this design are available from art dealers and galleries.



Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. If you are not sure of which maps you want, write for a PGC map order form.



PENNSYLVANIA GAME NEWS

SEPTEMBER 1991

ONE DOLLAR

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FEATURES

Double Clicks	4
By Charles L. Kane, Sr.	
Hunting Clubs and Wildlife Management . .	7
By Richard W. Donahoe	
Glory Days	12
By William Johnson	
Opening Day Grays	16
By Eugene Taylor, Jr.	
Day-Old Pheasant Program	20
By Carl Riegner	
The Coach	24
By Brett Gofgosky	
Pymatuning's "Other" Hunt	28
By John Crooks	
Having a Field Day	31
By J. Scott Rupp	

NEWS

Field Notes	34
Conservation News	39
Books in Brief	63
In the Wind	64
By J. Scott Rupp	

COLUMNS

There for the Watching (Another View) . . .	42
By Linda Steiner	
Fun Games	44
By Connie Mertz	
Outdoor Wildlife Learning	45
By Bill Einsig	
WCO Diary	47
By Keith A. Snyder	
Thornapples	51
By Chuck Ferguson	
Hunting for Score (Archery)	55
By Keith C. Schuyler	
You and Your Shotgun (Guns)	59
By Don Lewis	

COVER PAINTING BY MARK ANDERSON
(Cover Story on Page 6)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. **CHANGE OF ADDRESS: POSTMASTER:** Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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It's a Story Worth Telling

TWENTY YEARS ago, on September 23, 1972, the National Shooting Sports Foundation proclaimed the first National Hunting & Fishing Day. Every year since, on the fourth Saturday of September, a similar celebration has been held to commemorate and publicize the fact that it's sportsmen who are responsible for the abundant fish and wildlife resources all Americans are now able to so freely enjoy. It was sportsmen a century ago who fought for laws to protect dwindling fish and game, and today the charge of managing and enhancing these resources is still borne primarily by hunters, trappers and fishermen.

Unfortunately, a large majority of Americans—those who don't hunt, trap or fish—don't understand or appreciate the sportsmen's role in wildlife conservation. Yet those same people will ultimately control the destiny of the outdoor sports. That's why it's important, through National Hunting & Fishing Day and every other channel available, for sportsmen to take a more active role in promoting the positive aspects of the sports.

And while maybe even we ourselves don't always realize it, hunters, trappers and fishermen do have a lot to take pride in. According to the U. S. Fish & Wildlife Service, nearly 16 million people purchased hunting licenses in 1990, and fishing license sales exceeded 30 million. Income from license sales, which amounted to \$784 million in 1990, supports state wildlife agencies. But that's only the beginning.

Federal excise taxes on hunting and shooting related equipment, known as Pittman-Robertson (P-R) Funds, is another major source of revenue for wildlife conservation. Since P-R Funds were first levied in 1937, more than \$2 billion have been raised and allocated to state wildlife agencies. As a result, more than four million acres have been purchased and another 50 million acres are being managed—all for wildlife. Furthermore, due to countless research projects conducted through P-R, there's now a thorough understanding of population dynamics, habitat needs, carrying capacity and a host of other factors used to manage game and nongame animals.

At the turn of this century, for a variety of reasons, many animals were on the brink of extinction. But because hunters, trappers and other foresighted sportsmen interceded, the number of elk has gone from 40,000 up to a million; white-tailed deer numbers have gone from 500,000 to 12 million; and, for just one more example, wood ducks have been saved from near extinction and are now the most common species of waterfowl that nests in the eastern United States. Sportsmen can also claim credit for the dramatic recoveries being made by bald eagles, ospreys, peregrine falcons and other rare species.

Certainly not to be overlooked are the millions of dollars sportsmen donate to Ducks Unlimited, the National Wild Turkey Federation, Ruffed Grouse Society, Safari Club and other conservation organizations. These groups greatly enhance the work of state and federal agencies.

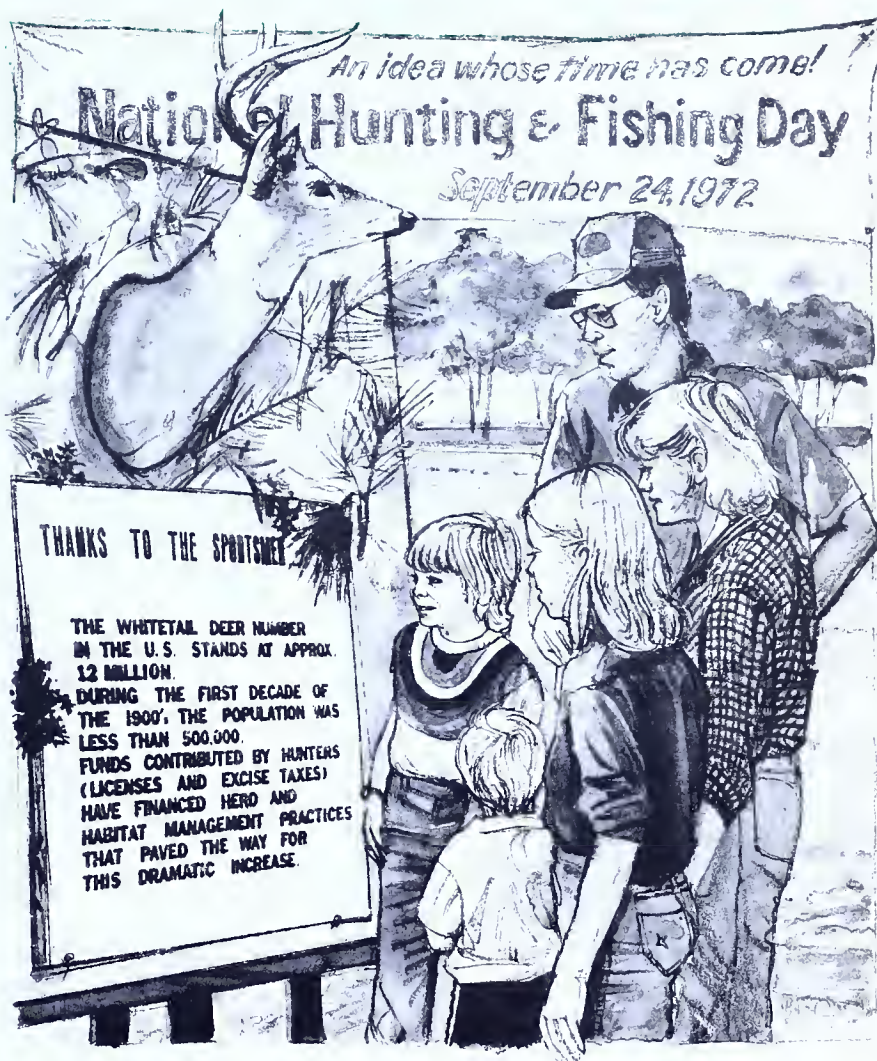
The vast majority of Americans appreciate wildlife, but not the work that goes into developing and maintaining our wildlife resources. And with animal rights groups continually chipping away at the very foundations of wildlife conservation, the need for making more people aware of wildlife management and the role of sportsmen is greater than ever. So make it a point, not just on National Hunting & Fishing Day, but on every opportunity, to make your friends, relatives and others aware of the sportsman's role in conservation. —*Bob Mitchell*

AN IDEA WHOSE TIME HAS COME...AGAIN!!! 20

AN IDEA WHOSE TIME HAS COME...AGAIN!!!

When Congress established National Hunting & Fishing Day 20 years ago, the day was hailed as "An idea whose time had come." Thousands of sportsmen's clubs across the nation hosted activities, publicizing the sportsman's role in conservation and enlisting public support of the wise management of our natural resources.

Today, the need to inform the public about the sportsman's role in supporting conservation has taken on a new importance, making the 20th Anniversary of National Hunting & Fishing Day on September 28, 1991, an idea whose time has come. Again!



NATIONAL HUNTING & FISHING DAY®

Sept. 28, 1991



AS WE approached the railroad bed Mike said load up, they should start flying anytime. Then, as if by command, a flock of 20 to 30 came whistling by, just a little beyond the range of my 20-gauge.

Double Clicks

By Charles L. Kane, Sr.

THE CLICK of a time clock on any Friday afternoon is a great sound; the click of a camera taking your picture for winning the Grand Nationals is, likewise, a good sound.

Then there are unwelcome clicks, like the clicking of a black bear's teeth as you stand waist deep in his wild berry patch. Or, the awesome sound of a broken firing pin at the most inappropriate time.

Clicks

Many who spent time in "Nam" will recall a metric unit of measure called a click, short for a kilometer.

Well, this story began when co-worker Mike Mitstifer asked me how I

did on doves over Labor Day. "Not so good", I replied. "How about you?"

"Charlie," he said, "I never saw so many doves in my life as my son and I had going on Monday. You gotta come up and see them for yourself."

"Be there at 11:45 Saturday morning." I said without a moment's hesitation.

Mike smiled and said, "See you then, and bring lots of shells."

As I drove toward Mike's place that following Saturday morning I remembered the long fields of corn running east and west away from the Susquehanna River. Add hay stubble, fox grass and an old railroad bed and you have all the ingredients for good dove shooting.

Mike and his son, Mike Jr., were sitting on the front porch when I pulled into their driveway. As it wasn't yet legal shooting time—noon—Mike got me a cold drink and we sat and chatted.

When it came time to go, Mike gave his son some instructions; Mike, Jr., then climbed into his truck and drove off down the road.

"Now, Charlie," Mike said, "here's what we're going to do. My son is going to come in on the railroad bed from the far end. That will send the birds toward us because they've been quick to flush in recent days. Then he will wait for us to spook them back toward him. Don't worry about a crossfire because he'll be at least 300 yards down the tracks, and we'll shoot only directly overhead or to the left or right."

As we approached the railroad bed Mike said load up, they should start flying anytime. Then, as if by command, a flock of 20 or 30 came whistling by, just a little beyond the range of my 20-gauge. They sure got my heart pumping and the adrenaline flowing though. I was ready.

HE WAS NO sooner out of sight when I heard his 12-gauge report again and again as doves flew lengthwise over the corn and then out of range. It was then that I noticed the large bulge in my game vest was empty shells, and that the little bulge was all I had to show for them.

Seconds later more birds took flight. Mike's 12-gauge barked and two streakers hit the dirt. It was obvious I was going to have to shoot a lot faster or end up with an empty pouch. And that's the last thing I wanted to happen. Anybody who has tasted breast of dove browned in a skillet and cooked slow in a butter sauce, knows what I mean. It's a meal second only to roast grouse.

The thought of an empty skillet worked; I took the next two.

By that time, we'd met up with young Mike, who also had two birds. I can only guess at how many dove escaped untouched or were too far to shoot at, but I'd say hundreds at least. And all

the signs were indicating we were in for a great day.

The sky was slightly overcast, the air was still cool and doves were everywhere. The three of us stood and talked about the birds we had hit and what was to come.

Next, Mike took me to a row of wild cherry and black locust trees overlooking a corn field that seemed to run from horizon to horizon. Between me and the corn was an equally long field of hay stubble.

Mike said, "Pick a nice shady spot to stand but keep your eyes open for doves coming in fast and low over this corn. They'll be coming here to roost in these trees. And make sure you have lots of shells handy because when I start down along the far side of that corn field on a jump shooting mission, those birds will head toward you and young Mike." The boy was stationed some distance away.



He was no sooner out of sight when I heard his 12-gauge report again and again as doves flew lengthwise over the corn and then out of range. It was then that I noticed that the large bulge in my game vest was empty shells, and that

the little bulge was all I had to show for them.

I still consider dove hunting a most enjoyable sport, even though I've never taken a limit of 12 on one box of shells. Some writers say that's a benchmark of good shooting. The mark of a great shooter is one who takes 12 birds on 12 shots. Of course, that's done only under the best shooting conditions, such as standing right under a flyway and picking shots, not taking them as they come like most hunters do.

Suddenly, on the lovely sound of whistling wings, there came a huge flock of doves. Mike's 12-gauge barking in the background had sent squadrons of twisting and spinning doves coming low over the corn field. I shouldered my little 20-gauge over-under and placed the bead on the approaching flock, holding my shot until they cleared the corn. Because I retrieve my own birds, I try not to drop them in the tall corn where they can all too easily vanish without a trace.

As the first few birds cleared corn I touched off the bottom barrel. "Click." I quickly dropped back to the rear trigger. "Click."

It's rare to have two faulty primers in a row, but I nonetheless extracted them, reloaded and opened fire on the doves that were all around me. "Click, click." It was a bird shooter's nightmare come true. Time seemed to stand still and silent. I felt like I'd just stepped into the twilight zone, where I was allowed to view both the future and the past of a hunter surrounded by flocks of

dove, a case of ammo and a gun that won't shoot.

What really was gnawing at my innards was the fact that I had a brand new Remington 870, still in the box, back home 40 miles away.

When Mike and his son finally came back, each with a pouch full of doves, I told them the whole story. They couldn't believe it and offered me one of their extra guns. I thanked them profoundly for what should have been a great hunt and left, vowing to return the next time with at least two guns.

I drove straight to my gunsmith, John Stoppa. He was standing on the porch as I pulled in the drive and quickly read the urgency in my eyes.

"What's your trouble?" he asked.

"I know this is going to sound strange, John, but I just broke two firing pins, back to back."

"Well, maybe one, but two?" John said in disbelief as he took the gun from me and shook it until it rattled. "Yep, you're right. They're both broke". That doesn't happen very often, but I'll make a new set for you. Should be ready before the weekend. Give me a call."

I thanked him for his understanding and drove off down the road, feeling good in that I at least wouldn't miss any more shooting. I learned a painful lesson. If you have two guns, take two; if you have four, take four. None of them are of any use in the box or a gun cabinet an hour's drive from where the shooting is.

"Double clicks" is a sound I hope I'll never hear again.

Cover Painting by Mark Anderson

Lucky is the outdoorsman who encounters a black squirrel in Pennsylvania. Black squirrels are not nearly as common as the gray phase, and they're not nearly as conspicuous, either. But they are certainly striking animals, particularly when the light is just right and their fur glistens. Based on historical accounts, black squirrels are not as common in Pennsylvania as they once were, but there are still areas of the state, particularly along the northern tier, where they are fairly abundant. Black squirrels, of course, are simply a melanistic color phase of the gray squirrel, and both colors may be found in the same litter.



KEN ZINN, far left, land management group supervisor for Union and Lycoming counties, has helped many area sportsmen's clubs initiate—in place of wasteful winter feeding programs—proven wildlife habitat management techniques on their properties.

Hunting Clubs and Wildlife Management

By Richard W. Donahoe
Land Management Supervisor
Northcentral Region

LYCOMING COUNTY is the largest county in the state. It encompasses more than three-quarters of a million acres, much of which has been owned and managed by private hunting clubs for generations.

In recent years, thanks largely to the efforts of the Game Commission Land Management Group Supervisor Ken Zinn, many club owners have stopped wasting time and money on winter feeding programs and, instead, implemented worthwhile wildlife habitat management practices.

Pennsylvania's forests were all cut around the turn of the century. In just a few years the timber was gone and much of the state was brushland. By the late 1920s and early '30s, as cutover forests began to regenerate, deer found optimum conditions and the herd grew dramatically. The interest in deer hunting swelled proportionally.

In those years, hunters headed to the mountains on horses, Model A Fords and even hitched rides on trains. Most camped in tents, some made use of abandoned logging camps. Unlike

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; North-east, 1-800-228-0789; and South-east, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

today, deer hunters of that era often spent a week or two in the woods. As time went on, many of those hunters formed clubs, acquired relatively inexpensive mountain land and established permanent hunting camps.

As a result, a large number of camps still exists in the county, particularly in the northern section. Some comprise hundreds and, in many cases, thousands of forested acres. Today, most trees are at the pole or sawlog stages of growth. These forest types, however, produce the least amount of food for deer and other wildlife. But by using proper management techniques, timber harvests are being performed on hunting club lands, resulting in revenue for the clubs and improved habitat for wildlife.

Sound Practices

Soon after assuming his post as land management group supervisor for Union and Lycoming counties, Ken Zinn began to get requests from some of the larger hunting clubs. Members wanted information on how best to manage their properties for wildlife. He welcomed the opportunity to meet with them, look at their grounds and make suggestions on how they could improve hunting through sound wildlife management practices.

The response he received from those

early contacts signaled a new trend. Historically, it seemed most clubs had only one wildlife management program—buying corn for winter feed. Some clubs were spending up to \$10,000 a year on corn. Armed with Ken's information and suggestions, a number of clubs began diverting some of their "corn money" to more fruitful projects.

The interest prompted Ken to plan an invitational tour of a state game lands to show club members some actual habitat management practices. For a site, Ken selected SGL 75, a 27,438-acre tract comprised of northern oak forest located in northwestern Lycoming County. He scheduled his tour for the afternoon of the last Saturday of the 1984 spring gobbler season, a time when many club members would be on hand. Invitations were sent to the larger clubs in the county.

When the big day arrived, representatives of eight clubs showed up. On the tour Ken emphasized the value of sound timber management as it pertains to various wildlife species, especially deer. He showed two commercial timber cuts, one a wildlife management clearcut and the other a wildlife management select cut.

Ken pointed out the mistake many clubs are making by selling timber just to pay taxes and raise corn money. The result, Ken explained, is a clearcut void of mature, high quality trees that provide mast for wildlife. All that remains are undesirable tree species and fields of ferns. Such short-sighted practices have long-term negative impacts on wildlife. He strongly recommends that clubs obtain the services of a professional forestry consultant and explore the possibilities of conducting cuts like those shown on his tour.

During the tour, Ken also showed attendees how to perform apple tree maintenance through pruning and fertilizing. They visited a variety of herbaceous openings (food plots) and discussed the merits of trefoil/timothy, crownvetch, clover/bluegrass and other planting mixtures.



PGC FORESTER PAUL CONFER, center, helping Ken, explains various forest management options to tour participants. Sportsmen/landowners who hire forestry consultants, it's recommended, should emphasize that wildlife habitat improvement, not financial gain, is the primary purpose of the timber cutting operations.

The group also got a look at border cuttings, and Ken explained their value. He showed them various types of tree and shrub plantings and explained how the plantings could best be utilized.

Ken was encouraged by the interest shown. He had follow-up contacts with all the clubs represented, and made on-site visits to a number of club lands. On several occasions, Game Commission forester Paul Confer accompanied Ken, adding his expertise on forestry management practices.

The word spread. Over the course of the next year, Ken visited other clubs and individuals interested in implementing wildlife management practices on their lands. Clubs that had been represented on Ken's first tour had all initiated projects on their properties; several had followed Ken's advice and hired professional forestry consultants.

Ken held a second tour in the spring of 1987, and this time 11 clubs were represented. It was held on SGL 134, a 6,663-acre tract typical of the northern

hardwood forests located in the north-eastern section of Lycoming County.

This tour began at the Northcentral Game Farm near Proctor, where the group learned about the agency's Sichuan pheasant program. From there a number of commercial forest clearcuts were highlighted. In the cuts, the group was shown how wildlife travel lanes, islands, uneven edges, select cuts, seed trees, tree and shrub plantings, and seeding of roads and landings improve wildlife habitat. Clearcuts on state game lands contain all those wildlife habitat practices. The tour even included a stop at a rabbit management area.

In-Depth Lecture

Confer gave an in-depth lecture on different types of forest management concepts and associated practices.

Coming from an agricultural background, Ken concluded the tour with an informative discussion on the types of equipment and machinery clubs

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might need to establish and maintain their projects.

Again, the response to the tour was good. Many clubs, rather than spending money on corn, began to implement various large-scale wildlife management practices. They hired forestry consultants to set up timber management plans designed specifically for wildlife. In many cases profits from the sale of select timber cuts were used to fund bulldozing operations that established food strips and other plantings.

Some clubs used timber sale monies to buy tractors, mowers, and seeding and other equipment. Many club members said their new projects made them feel they were really doing something good for wildlife.

More Clubs Involved

Ken planned a third tour for the spring of 1990, hoping to get even more clubs involved. Having observed some of the significant accomplishments made by many of the organizations he'd been working with, Ken thought it would be a good idea to include a number of these club lands on the tour. Several clubs agreed to participate.

The Cornwall Mountain Hunting Club, containing 2,850 acres, offered to be the host club and graciously provided lunch for the participants.

Invitations were sent to 60 Lycoming County clubs. The June tour was attended by 30 individuals representing 18 groups. The total amount of land owned by these clubs amounts to more than 30,000 acres.

At the Cornwall club, Ken and Paul Confer welcomed everyone and briefly discussed the success of past tours. Mother Nature was making a dramatic showing of how she can impact on wild-

life habitat. As welcoming remarks were made, everyone had to keep brushing gypsy moth caterpillars off their clothing. The defoliation caused by the caterpillars is just one of many factors managers must contend with.

While on Cornwall's property, the tour stopped at a newly constructed 1-acre pond and several herbaceous openings. The openings contained various seed mixtures, giving tour leaders an opportunity to discuss seeding methods, liming, fertilizing, mowing and other maintenance procedures.

One large part of the club's land offered viewers a prime example of how not to cut timber. Twenty years earlier all the valuable timber had been removed; only a poor stand of red maple and birch trees remained, standing among a thick carpet of ferns. No mast or other food sources existed there.

But the area had undergone improvements a few months prior to the tour. A mile long, 12-foot wide zigzag food strip was bulldozed. The strip was fall-seeded with a clover/trefoil/timothy mixture, and the edges were border cut. Clump plantings of conifers and other trees and shrubs were planted along the borders.

Although the project was only a few months old, it was already being used by many wildlife species. The strip was definitely worth the investment of time, effort and funds. Many club members expressed regret that they hadn't started that type of program years before.

The Lycoming Hunting Club, which borders the Cornwall club to the north, was the next stop on the tour. A large 5-acre food plot had been established about four years earlier, the product of many hours of picking rocks by dedicated club members. Planted with a mixture of clover and bluegrass with timothy added later, the plot provides much-needed habitat, especially for turkey and deer.

The club owns 3,800 acres, and it hired a professional consultant to help manage its woodlands. Numerous cuttings, in various stages of regeneration,

were visited as the group toured the property.

Ken believes the number of club land acreage now being managed for wildlife under the direction of private consultants exceeds the county's game land acres.

It has been noted that a number of clubs have secured the services of professional forestry consultants. Clubs that hire consultants are cautioned to emphasize to the contractor that the primary concern is to provide and improve wildlife habitat for targeted species. Many consultants work for a percentage of timber sales, and sometimes mark valuable wildlife food-producing trees for cutting because the trees themselves are worth a lot of money. This issue is emphasized on all our tours, and one of the best solutions is to negotiate a flat fee for the consultant.

It's been most interesting and satisfying to see wildlife habitat improvements taking place on hunting club lands and other private lands in the county. As Ken's immediate supervisor, I salute him for recognizing the need

and implementing the invitational tours, and for holding many other consulting sessions and visits to individual clubs and landowners. He's certainly done a great deal to promote wildlife management practices in his area.

Other Areas

While the focus of this story is the hunting clubs in Lycoming County, these same techniques can be used on reverting farmlands and other areas that have great wildlife habitat potential. It's a good feeling to become involved in something that gives lasting improvements and benefits. And it sets a good example for other landowners to follow.

If you're among the many GAME NEWS readers who own or at least influence how land is managed, and you're interested in receiving expert help, call your Commission regional office. Many wildlife habitat management tours are conducted by the agency, usually during late spring and early fall. Take a tour and then undertake a project on your property. You and wildlife will both reap the benefits.

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GLORY DAYS

By William Johnson

DAD AND I leave the woods at the crest of the hill and enter a large weed field that slopes down to a dirt lane. The last day of the 1976 pheasant season is rapidly drawing to a close. We're hunting on my uncle's farm south of Dillsburg in northern York County, and we're headed for his trailer on the other side of the lane.

Pheasants are our quarry, but to a large degree our thoughts and conversations are focused on bucks. Not the little green ones with pictures of presidents, but the big tan ones with large polished racks and rippling shoulder muscles that haunt every hunter's dreams come fall.

Although the upcoming buck season is clearly a priority this time of the year, we always hunt the last Saturday of pheasant season. Of course, we hunt every Saturday of the season and every other day we can squeeze in, but the last day is special.

No Better Way

We know it will be another year before we will again be afield pursuing our favorite small game and sharing the camaraderie that goes with pheasant hunting. Also, it gives us a chance to burn off some of the turkey we've been eating the last couple days, and we can't think of a better way to pass the time as we wait for Monday morning.

My two uncles who accompanied us an hour ago have quit hunting, but I was able to talk Dad into taking one last swing around the upper forty before we called it a season. We've had plenty of shooting, and everyone has a ringneck to show for it except me. My poor shooting is due in large part to the fact that by the last day of the season I have lost my "edge."

Early in the season I constantly watch the dogs and totally concentrate on hunting, but on the last day I tend to

slow down a little and savor the full experience of the hunt. There are pheasants in the freezer; now is the time to talk more, stop often to hug the dogs and tell them how good they are. It's a day spent doing something special with people I care about.

As we walk into the field, I ask Dad if he got a look at the deer I jumped. They ran his way, all I saw were tails. "One buck and two doe," he replies. Just as I start to ask him how many points the buck had, I'm cut short by a frantic yelp from my beagle Missy, followed by the sound of flushing pheasants.

We are so occupied with deer that we paid no attention to Missy and my mixed breed Bear, and now the field is exploding with pheasants about 20 yards in front of us. More than a dozen birds are in the air and at least five are roosters. But because we're unprepared and there are too many hens, neither of us takes a shot.

We begin to lower our shotguns when a second wave of about 10 birds goes up. We're ready this time, and our Winchester 97s open in unison. My volley consists of three extremely fast, totally inaccurate shots. Dad rocks his rooster with the first round and downs him with the second. I don't know if Dad is savoring the day any less than I am, but he sure is shooting a lot better.

"I missed," I yell as the dogs put up more birds. There are three ringnecks in this bunch, but my gun is empty and Dad already has his limit; they escape untouched.

I saw Bear running toward Dad's rooster so I know the dog has it marked. "I'll get him," I tell Dad as I run after Bear. I'm not hurrying because I think Bear needs my help—I have complete confidence he will find the rooster. I'm hurrying because Bear occasionally uses excessive force in re-





straining escaping ringnecks, and I know the only teeth marks Dad likes on his pheasant are his own.

My concerns prove totally unfounded. As I near the lane, Bear is coming back to meet me, “gently” dragging the rooster by its neck. “Good boy” I say as I take the pheasant and hold it up for inspection. I am impressed with the restraint Bear has shown; the rooster even has a few tail feathers left. Could it be that even Bear is a little more mellow today?

“Do you believe that?” I ask as I hand Dad the pheasant. We both agree that this is some way to wrap up the season. Close to 30 birds must have been in the flock. It’s the second largest concentration of pheasants I’ve ever seen while hunting. There are about 60 acres of harvested corn below the lane (this is back when there was still plenty of food and cover left in the fields after they were harvested) and we speculate that we must have caught them as they were leaving the corn and heading for the woods to roost.

The short walk to the trailer in the rapidly cooling evening allowed us to finish our conversation about the buck season and reflect on what a great year it had been. The dogs jump into the truck cab and I wish Dad luck on Monday morning. He is going to hunt deer here on the farm. I took a nice 7-point here last year, but I bought a place on the side of Roundtop Mountain about eight miles away, and plan to hunt there. I get into the truck and wave goodbye to Dad, thinking it doesn’t get any better than this as I drive away.

The story should end here, and I

wish it did; I wish I could write that we’ve had many similar days in the pheasant fields since then, but I can’t. Looking back, it seems ironic a great season that ended on such a high note would mark the end of the pheasant hunting glory days.

Although it’s been more than a dozen years, the feelings of loss are still very sharp and the feelings of disbelief have not entirely faded. I don’t think anyone who hunted pheasants in southcentral Pennsylvania in those days foresaw what was about to happen.

The signs clearly were there prior to the 1977 season. There weren’t many ringnecks crowing that spring, and all summer long the numbers of birds we were seeing on the back roads and in the fields were way below normal. We talked about it, but we didn’t take it seriously—we didn’t want to take it seriously. The conversations all ended with something like “they’re there, they’ve always been there.”

Opening day found us afield full of confidence, but by noon the nagging doubts became full blown concerns. Something was definitely wrong. Some optimists maintained the birds were in the corn and we’d see them after it was cut. I had too much faith in my dogs to believe that, and as the season wore on there was just no denying the pheasant population was just a fraction of what it had been.

The winter of 1976-77 had been unusually cold; we hoped that was the problem and the following year hunting would return to normal. But there were even fewer birds in 1978, and ’79 was abysmal. The ’79 season was the low point for me, at least from a psychological perspective. It brought the realization that the drop in the pheasant population was not a freak occurrence and that pheasant hunting might never be the same again.

I still hunt pheasants, and as long as I have a good dog, a good hunting companion and a few fields and some woods that hold birds, I probably always will. When the pheasant hunting dropped off, many hunters turned to turkeys,

WE BEGIN to lower our shotguns when a second wave of about 10 birds goes up. We're ready this time, and our Winchester 97s open in unison. My volley consists of three extremely fast, totally inaccurate shots.

squirrels or other game. I just can't make that switch; for me, small game hunting will always mean pheasant hunting.

Pheasant hunting has improved somewhat in the last few years. We've been trying to establish better pheasant cover on my uncle's farm, and it's helping. I also believe the Game Commission's policy of breeding a hardier, wilder pheasant is working.

Because I live and hunt near a game land, I've seen evidence that the birds the Commission is now releasing have a chance at surviving in the wilds and may even be adding to the breeding stock. I hope the Commission's Sichuan pheasant program proves successful and provides additional pheasant hunting opportunities.

However, one has only to look at the radical changes in farming practices and the rampant suburban sprawl that is rapidly gobbling up former prime pheasant habitat to realize pheasant hunting in southcentral Pennsylvania will never again be what it was. Those days are gone forever.

I still have my memories of those glory days, and even though for me they



were painfully short (two full seasons when I lived in the area and a number of prior trips) I am thankful. It saddens me, though, to think my young son Danny and I will never experience together the kind of pheasant hunting Dad and I did.

That night in 1976, while I drove home with Bear's head resting on my lap and Missy sleeping curled up on the truck seat, something very special to me was rapidly slipping away, and I never even knew it.

Antlerless Deer License Application Schedule

Next month county treasurers will begin to accept and process antlerless deer license applications. The following guidelines apply to mailed applications. The pink envelopes have pre-printed numbers indicating how many applications are enclosed. If the correct number isn't circled the application won't be processed. Envelopes must also be marked resident or nonresident. Not more than three license applications may be submitted in a single envelope. Following is the schedule for this year's antlerless license application procedures.

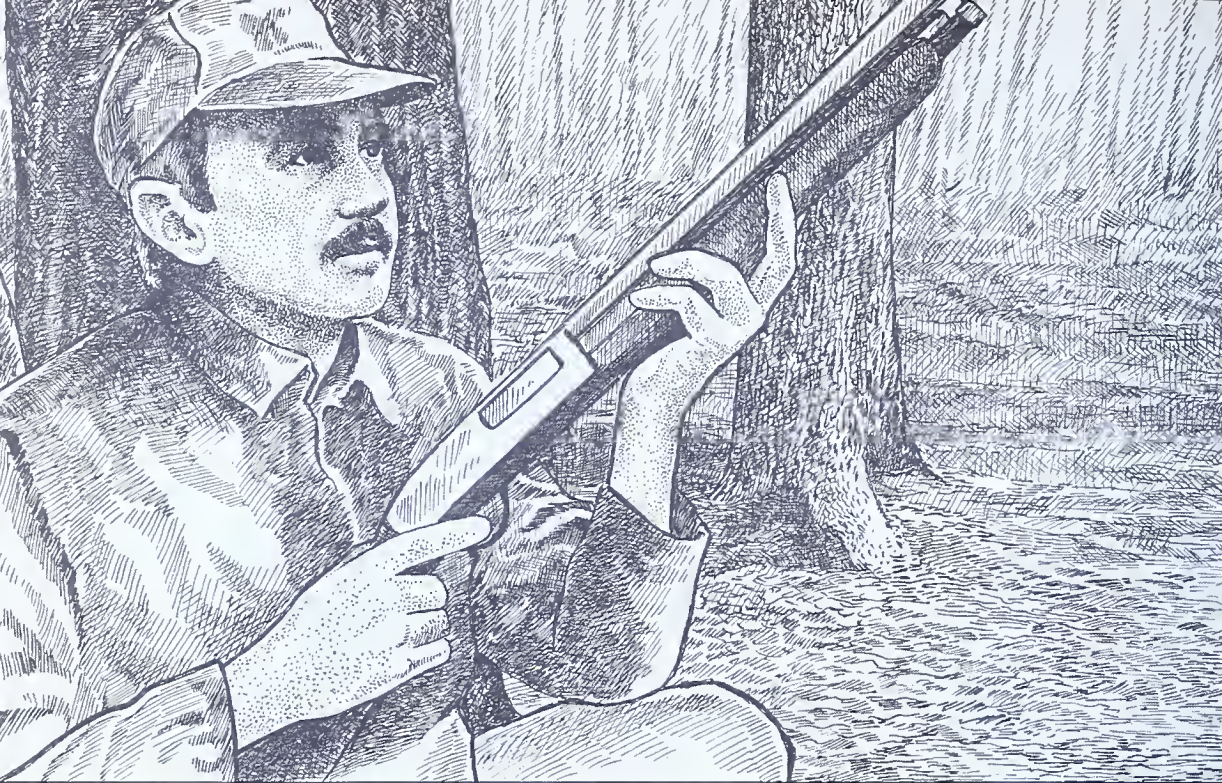
October 7—First day resident antlerless license applications may be accepted by county treasurer. (mail only)

October 9—Public drawings, in counties where drawings are held

October 21—Nonresidents may apply for antlerless licenses. (mail only)

October 28—Applications for first bonus tags may be accepted. (mail only)

November 12—Over-the-counter sales begin for antlerless deer and bonus antlerless deer licenses. Applications for second bonus tags accepted. (In the Special Regulations Areas, applicants may apply for and receive three additional bonus tags on or after November 12.)



I HADN'T even ejected the spent shell when a second gray showed up from the same direction. The season was barely minutes old and I'd already collected two squirrels.

Opening Day Grays

By Eugene Taylor, Jr.

THE RAIN is picking up a little, and its peaceful patter across the roof of the camp is like a soft lullaby. I start to drift off to sleep, when suddenly the tranquility of the moment is broken when one of my companions lets out a long snore. It keeps me awake but it forces a smile across my face. We're all tired. It's been a long day, but the kind of day that will be relived in our memories many times over.

Didn't Give Up

We'd planned the trip for some time, and as the day drew near our anticipation increased. We'd been working six days a week for months and really needed a break from the dusty paper mill. But right before our departure they scheduled us for another six days. We didn't give up, though. We were working the midnight shift and figured if we left work at 4 a.m. we could be at Butch's camp in Jefferson County by

daybreak. So between the three of us, Richard "Butch" Crytzer, Clair Radcliff and myself, we managed to coax the foreman into letting us leave early.

The sun was coming up just as we pulled into camp. Jack Frost had done his job well. The ground was blanketed with a heavy frost and the trees were painted in brilliant reds and golds. The air was crisp and clean, and full of autumn smells. It made one feel good to be alive.

We quickly unloaded our gear and set up camp. We immediately changed into our hunting attire and headed out. As we walked down the old logging road behind camp, we kicked out three deer—a doe and two yearlings. They bounded away, tails raised. We'd planned to hunt an oak ridge that runs alongside Sharp's field; at the base of the ridge we wished each other luck and planned to meet back at camp for lunch.

I loaded my old 16-gauge and slowly picked my way through the woods, arriving at a clearing overlooking two old hickory trees. I'd hardly settled in when two hunters walking through the woods about 60 yards to my right startled a gray squirrel. In its escape attempt, it ran up an oak 15 feet in front of me. I hadn't even ejected the spent shell when a second gray showed up from the same direction. The season was barely minutes old and I'd already collected two squirrels.

After retrieving and field-dressing the squirrels, I walked back to my stand. It wasn't long before the forest quieted down and its inhabitants went about their business. Movement in the leaves at the top of a hickory caught my attention; after what seemed like an eternity, I finally saw the gray as it reached for a nut.

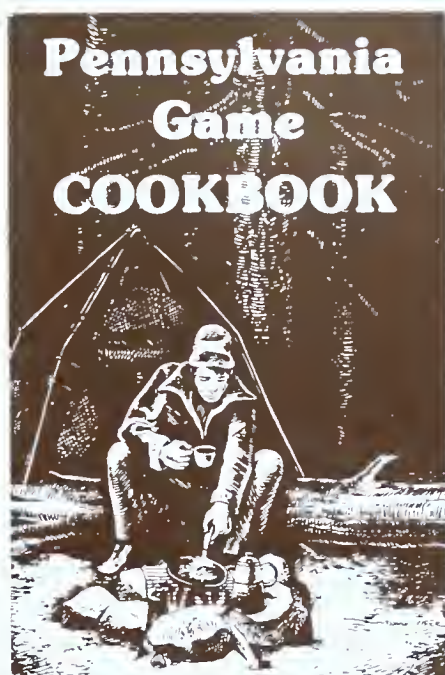
The forest quieted again after the shot. I sat still, mentally marking where the squirrel had fallen. I had learned long ago that as long as your movement has not been detected, any remaining squirrels will quickly renew their foraging. The sound of gunshots does not disturb them for long.

Soon the crunching of leaves behind me revealed the presence of another squirrel. I eased around and waited until the gray moved into a small clearing in the forest floor. As I raised my gun the squirrel caught the motion and turned what was a relatively easy shot into a tough one, but the load of No. 6 shot caught him just as he cleared a small clump of laurel.

I didn't want to overshoot that section of woods, so I gathered up my squirrels and began to still-hunt farther down the ridge.

I was glad that we had chosen to use our shotguns instead of 22s. In the early autumn forest, the leaves are still quite heavy, and picking out a squirrel in all that cover is a real challenge. Also, in a lot of instances, shotguns are a bit safer.

Squirrel hunting is one of the simplest and most relaxing forms of hunting in Pennsylvania. First-time hunters



Pennsylvania Game Cookbook is a 96-page collection of delicious recipes submitted by **GAME NEWS** readers. It includes methods of preparing all kinds of game available in Pennsylvania, plus some recipes for moose, elk, and other species. \$4.00 delivered from **GAME NEWS** office.

and wise old-timers alike can enjoy the sport. Whether you still-hunt or take a stand, all it takes is patience and a sharp eye. It's good practice for other game and a great time to scout for the upcoming buck season.

Squirrels respond quite readily to calls, whether they are commercially produced or simply coins rubbed together to imitate a squirrel cutting on an acorn.

The squirrel season also arrives at one of the most pleasant times of the year. You can usually get by with just a light sweater or jacket, and the fall forest can be a spectacular sight. And, of course, properly prepared squirrels are a culinary delight.

The woods are alive with activity;



I WAITED but a short while before the first gray showed up, its cheek pouches puffed out, full of acorns to store for the upcoming winter. He was out of range, but I didn't mind. It was entertaining just to watch him.

I sat back against the trunk of an old oak, letting the morning sun fall across my face. Its warmth felt good in the cool, damp forest. The stream bed seemed like an ideal place for squirrels to live, full of oak and hickory trees. Grapevines and laurel give them plenty of ground cover, and it's less than 60 yards from a cut cornfield. Although acorns and nuts are their primary foods, squirrels love corn. Many a farmer can attest to that.

I waited but a short while before the first gray showed up, its cheek pouches puffed out, full of acorns to store for the upcoming winter. He was out of range, but I didn't mind. It was entertaining to watch him as he diligently went about his work, gathering a mouthful of nuts before climbing to a hole in an old oak tree. He'd then rush back down to repeat the process.

A rustling of leaves off to my left finally diverted my attention from the squirrel. It was another gray working the forest floor for acorns. I took him with a nice clean shot as he perched on an old stump. Again I marked the spot and sat still. The first squirrel had disappeared at the sound of my gunshot, but was quickly back to work.

In about half an hour a small shower of acorn hulls falling to the ground gave away the location of yet another squirrel. He was perched in a "Y" at the top of a tree and made an easy target. My limit now filled, I gathered up the squirrels and started back to camp. The weight in my game bag felt good—it had been a great way to start the season. I don't ever recall seeing more squirrels; even on the walk back to camp, squirrels and squirrel sign were everywhere.

Back at camp, Butch and Clair had already started lunch. Their luck had been as good as mine. Clair had killed five squirrels and Butch four, including a nice fox squirrel. After lunch, we went outside to clean our game. It felt good

hunters constantly move deer around the forest. Butch watched a 4-point buck and three does walk within 20 yards of him.

Butch has hunted these woods for many years; he bought the camp from his father. He knows the area very well, and he had put us into some fine hunting that morning.

Deadly Gun

Butch has one of the deadliest squirrel guns I've ever seen. It's a Mossberg 410 with a 4x Simmons scope mounted on it. Butch says lining up the crosshairs for a clean head shot on a bushy tail helps him out later on when it's time to line up a different set of crosshairs on the vitals of a nice buck.

I had worked my way down into an old stream bed that leads down into what the locals refer to as No Man's Land—with its steep and rocky terrain it pretty much lives up to its name. I hate the thought of trying to drag a deer out of one of those jagged ravines. But at the top it doesn't look all that intimidating.

to get away from work and the hustle and bustle of home, just relaxing and enjoying some peace and quiet with some good friends and fine hunting.

We talked over our afternoon hunt and planned to split up. Clair wanted a chance at a black squirrel and Butch wanted to get in some scouting for buck season. I decided to tag along with Clair to perhaps get a shot at a grouse or see a few deer.

It had begun to cloud up as we started our trip back down the logging road. By the time we reached our spot, there was a light rain coming down. Butch had seen two black squirrels in this section of woods in the past buck season, and we thought they might still be around.

It began raining heavily, so we sought shelter under a large hemlock tree. We sat there motionless, the sound of rain enveloping us. Soon the squirrels were out moving about. We must have been sitting in the middle of a dozen gray

squirrels, and although we didn't see a black squirrel, we enjoyed watching the grays as they scampered about the forest floor.

As evening fell, we silently worked our way back to camp. It had been a long day and we were getting tired. We'd been awake well over 24 hours. The cabin was dark when we arrived back at camp, and we figured that Butch had not yet returned. But, when we got inside, we found him stretched out across his bed — boots and all — fast asleep. The warmth of the camp's fireplace quickly overcame us, and we were soon stretched out in our own beds as well.

Now, as I lie here listening to the rain dance across the roof, I reflect back on the day, not knowing when we'd get a chance to do this again. Monday it's back to work and six-day weeks. But in my dreams it's just clear blue skies, brightly colored leaves, and scampering squirrels.

JOYCE HILKER presented Middle Creek Wildlife Management Area Manager Ed Gosnell with a decorative Canada goose doorstop. Hilker made the presentation on behalf of the York County Conservation Camp to express appreciation for Gosnell's help with the class.





SPORTSMEN'S CLUBS and other conservation groups are being encouraged to participate in the Game Commission's day-old pheasant program. Here club members erect a large net over a holding area to contain and protect the growing pheasants they're about to receive.

**An Old Program Is Being
Revitalized, the Agency's . . .**

Day-Old Pheasant Program

By Carl Riegner
Chief, Propagation Division

EARLY ATTEMPTS to establish pheasants in North America date back to at least the mid 1700s, but it wasn't until 1881, in the Willamette Valley of Oregon, that the birds finally became established.

During the early 1890s, several citizens purchased pheasants from English gamekeepers and released them in Lehigh and Northampton counties. For several decades many other small-scale releases were made to establish the pheasant for sport hunting here.

During the early 1900s the Pennsylvania Game Commission set aside a special appropriation for game propagation. Pheasant eggs were purchased

and given to agency refuge keepers, and to sportsmen's organizations and private individuals interested in raising pheasants. The first stocking of pheasants by the Game Commission occurred by 1915.

Self-sustaining populations, however, had their ups and downs. It wasn't until 1923, when laws were enacted restricting seasons and bag limits, that pheasant populations significantly increased. In 1928, with the establishment of two game farms, the Commission began the propagation of pheasants on a large scale. During the next 60 years, to satisfy the demand for pheasant hunting, three other farms were put into opera-

DE-BEAKING birds to keep them from injuring one another is but one of many suggestions and recommendations Game Commission game farm managers will give cooperators in the day-old pheasant program.

tion. Programs also were developed to provide day-old pheasant chicks to sportsmen's organizations, 4-H clubs, farmers, and other cooperators for rearing and release on public hunting areas. In 1959 the number of pheasant chicks distributed to cooperators reached 238,455, an all-time high.

During the late 1960s and early '70s, pheasants flourished in Pennsylvania, with annual harvests estimated at more than a million birds. By the 1970s, however, cooperative programs were discontinued, except with sportsmen's organizations.

In the mid 1970s, the pheasant population and harvest trends started declining. Economic trends in agriculture intensified farming practices. The use of herbicides, pesticides and chemical fertilizers increased substantially. Increased row crop acreage, urban developments and the elimination of fence-rows on farm fields also accelerated the pheasant decline. From the mid '70s through the early '80s, approximately 900,000 acres of farmland—much of this prime pheasant habitat—were lost to urban development.

Two hard winters in 1977 and 1978 further depressed pheasant populations. The Commission attempted to offset declining populations by mass producing and releasing pheasants. We soon learned, however, that that procedure resulted in birds of poor quality, with a loss of hardiness and increased tameness. Studies conducted in the early 1980s showed that traditional pen-reared pheasants did not survive well in the wild. These studies suggested that learned behavior is the main factor influencing survival.

In the early 1980s the Commission implemented new propagation techniques designed to produce a wilder, hardier bird better prepared for survival. Our game farms reduced rearing densities and provided a diversified



habitat under covered fields in which free-flying pheasants are raised. Direct contact with humans was minimized. We expected the birds would learn to fend for themselves and retain their natural wariness.

The most obvious effect of this change was a reduction in the number of pheasants we could raise. Production went from an all-time high of 425,217 pheasants, in 1983, to approximately 220,000.

Raise & Release

To help offset this reduction, the Game Commission is once again actively promoting our day-old chick program, through which sportsmen's groups are given pheasants to raise and release.

Raising pheasants is time consuming, but it's also quite rewarding. A lot of pleasure can be derived from caring for and watching the young chicks transform into adult birds in just 18 weeks. Also, there's the satisfaction of releasing them into the wild.

The initial costs of constructing a brooder house and pens can be expensive. But when it's considered that a pheasant project is a long-term investment and that a brooder house and fences can last 10 years or so, the costs are really not that high.

This year 23 sportsmen's organizations are participating in the day-old

Game Commission Firearms Auction

The Game Commission's annual public auction of confiscated firearms will be held on Saturday, September 14 at the Lebanon County Fairgrounds along Rocherty Road, east of Route 72 and south of Lebanon. Buyers must be state residents at least 18 years old and able to produce positive identification. Personal checks and cash will be accepted. Firearms may be inspected from 8 a.m. until 10 a.m., when the auction will begin. For further information write to the Game Commission, Bureau of Law Enforcement, 2001 Elmerton Ave., Harrisburg, PA 17110-9797.

pheasant program, through which more than 8000 are being raised and will be released into the wild.

Sportsmen's organizations interested in raising pheasants for the 1992 season should begin planning a facility to accommodate the birds.

In an attempt to better assist and serve sportsmen's organizations participating in the day-old pheasant program, the Bureau of Wildlife Management has revised the regulations and procedures for program participation.

Applications must be received by March 31 so we can adjust production quotas accordingly. It is necessary for the game farm superintendents to schedule sportsmen's birds into the hatching schedule, so our rearing quotas are not compromised for the fall allocation of pheasants.

Applications received after March 31 will be accepted only if birds are still available.

What We Provide:

1) Day-old pheasant chicks, hatchery run (approximately 50 percent cocks — 50 percent hens). The number of chicks given to the organization depends entirely upon the size of the facility available.

2) Plans for a brooder building, covered pen, and guidelines for rearing pheasants.

3) Technical assistance and advice at your facility provided by a game farm superintendent or local wildlife conservation officer.

4) Training session and overview of game farm operations scheduled at the game farm of your choice, during the off-season, to assist in your program development.

What Clubs Must Do:

1) To be eligible to receive pheasant chicks, applicants must have a minimum of 25 square feet of covered pen space per chick. In addition, 72 square inches of floor space per chick is recommended in the brooder building. This promotes a healthy environment and reduces cannibalism.

2) All construction and feed expenses are the responsibility of the cooperator.

3) The organization must agree to release all pheasants on lands open to public hunting. Pheasants may be held for a spring release if desired.

4) Organizations should not release pheasants until the birds are at least 12 weeks of age.

5) Pheasant chicks may be raised at the cooperator's facility or by a designated caretaker with the proper facilities.

6) Maximum returns will result by releasing pheasants as close to the opening of small game season as possible and no later than the end of the second week of the season.

How to Obtain Pheasant Chicks

1) Complete all the necessary information on the application for day-old pheasant chicks, and return to the Bureau of Wildlife Management, 2001 Elmerton Ave., Harrisburg, PA 17110-9797.

2) Chicks will be available during May and early June.

3) A game farm superintendent will send notification to approved organizations when chicks are ready for pickup.

4) Arrive at the appropriate game farm in early morning on the assigned date to pick up your ring-necked pheasant chicks.

5) Assistance can be obtained by calling the corresponding game farm superintendent.

Sportsmen's clubs represent a tremendous potential to help provide better pheasant hunting opportunities in

Pennsylvania. If you would like more information on how to get involved, and enhance pheasant hunting opportunities in your area, write to the Bureau of Wildlife Management at the address above. Pheasant hunting probably will never again be like it was 20 years ago, but that's not to say some outstanding opportunities can't exist, especially if more of us get involved.

In Memoriam

Paul K. Schaffner

1921-1990

Equipment Operator

Ret. 1986; 20 years

William E. Lee

1917-1990

Wildlife Conservation Officer

Ret. 1978; 29 years

Wallace E. Woodring

1908-1990

Wildlife Conservation Officer

Ret. 1971; 28 years

Violet L. Shade

1911-1990

Custodial Worker

Ret. 1976; 9 years

Charles H. Fox

1908-1990

Game Propagator

Ret. 1973; 26 years

R. Theodore Godshall

1932-1990

Information Specialist

Died in Service; 25 years

Duane E. Lettie

1914-1991

Wildlife Conservation Officer

Ret. 1974; 38 years

Paul R. Miller

Died December 1990

Laborer

Retired

Robert C. Snouffer

1948-1990

Wildlife Conservation Officer

Died in Service; 13 years

Harold E. Russell

1928-1990

Land Management Officer

Ret. 1968; 32 years

William H. Shaffer

1915-1991

Federal Aid Supervisor

Ret. 1979; 36 years

Michael Sarachman

1923-1991

Wildlife Conservation Officer

Ret. 1977; 21 years

Fuller H. Coffin

1909-1991

Wildlife Conservation Officer

Ret. 1944; 8 years

The Coach

By Brett Gofgosky

THE SUN was just beginning to rise as I pulled into Art's driveway. I had made sure all my hunting gear and archery equipment were in my truck the night before. This, I thought, was the start of my bowhunting career.

Art is somewhat of a bowhunting legend in my area, and he finally agreed to teach me. The guy was sort of like E. F. Hutton: When he talked about hunting, everyone listened.

After coffee we went out to his target range for some practice. But after looking at my bow and arrows and measuring the draw weight, he told me to put it back in the truck.

"What's wrong?" I asked.

"You can't swim with lead shoes," was all he said. "Next week we'll practice; today you start to learn the forest."

Fishing Poles?

Just as we were pulling out of the driveway he stopped and got two fishing poles and put them in my truck.

"Are we going fishing?" I asked.

"Nope," he said, "just taking them along for the ride." I was beginning to wonder if Art had recently fallen out of a tree stand or suffered some other brain-jarring mishap.

We arrived at our destination and started across a field, with the fishing poles in hand; a pickup went by and the driver waved. When we got to thick brush, Art hid the poles and let me in on his secret.

"There's a pond down in the swamp and if anyone sees me going in here I want them to think I'm fishing, not scouting for deer season."

We stopped under a big tree out of the August sun and Art took out a detailed map of the swamp. It showed the corn field at the north end and noted the locations of everything from old deer scrapes, trails, apple trees, creek

crossings and stands, to buck rubs and even actual sightings. The south end held a thicket on an island labeled "Bedding Area—Keep Out!"

"Now, Brett," Art said, "deer are living, breathing animals that have to eat and sleep, just like we do, in order to exist. A hunter has to understand where a deer does all these things. The trails that deer make are your key to unlocking the whitetails' world."

"A deer's nose is his first and foremost defense, his ears and eyes are next in importance. No cover scent on the market can fool a deer's sense of smell. But the eyes can be deceived with proper camouflage. A deer should never see, smell or hear you coming or going, or while you're on stand. That's the key to hunting."

Art and I toured the swamp, and he showed me the places marked on the map. "My access trail is also my study trail," Art said. "Each time I'm done hunting I follow the trail from the river all the way back to the truck to see where the deer came through. When I get home I fill in my journal. After a few seasons, you can almost do most of your scouting from reading the journal, but you still have to get in the field to double check."

I went home and wrote down everything I could remember. The following Saturday I had my next lesson. Art was already tinkering in his shop when I arrived at first light.

"Bring your archery gear over here," he yelled. I gathered up my stuff and took it over. "Put it on that bench there and go out and finish building the fence from the chicken house to the woods," he instructed me.

"But . . ." I started to say. He raised his voice a little and said, "Do it young man, and don't come back till you're done."



M. GIORIO BRUMMETT

Some deal, I thought. He was going to teach me to shoot and I end up having to build his fence. But, then again, you don't argue with a man who looks like a cross between a grizzly bear and a pro wrestler.

It took me four hours to build the fence, and after I put the tools up I went back to the shop. There Art sat, a grin on his face. "You've done a good job," he said. "Oh, by the way, check your bow."

Art had done a complete makeover on it. He installed an overdraw, peep sight, T-M Hunter rest, sling, new sights and a stabilizer on my Martin Lynx. "That's for building the fence; now let's practice," Art said.



After about 10 minutes of practice I was shooting 3-inch groups at 20 yards. As I shot, Art recited a litany: "Don't grip the bow, hold your arm steady, make a smooth release, hold the bow up after the shot, no peeking." It transformed me into a really good shot.

"Just remember those words and say them to yourself every time you shoot," Art said. "That's the secret to good shooting, son. Remember it on a deer, as well. Say to yourself, 'Pick a spot.'"

"I'll see you Saturday morning, Brett. Remember what I told you and practice every day," Art said as he locked the

shop and went back to his house. Every Saturday the rest of the summer was spent practicing and learning about nature. I grew to respect the animals and to love the time I spent learning about the forest with Art.

As bow season approached, Art didn't seem to have the pep he'd always had. All he would say was his arthritis was acting up and then change the subject.

Two days before bow season we located four stands. It was hard to sleep those two nights—all I could think of was opening morning and the buck I would shoot.

Opening morning finally arrived and I was at Art's house an hour and a half before sunrise. After checking the wind direction, Art told me which trail to use to get to the No. 4 stand. As I started down the trail Art stopped me and said: "Draw your bow on every doe that comes within 20 yards so you learn when you can move and when you can't. Does can see, hear and smell as well as a buck. Learn that lesson before your buck comes along and you'll be rewarded."

FIFTY YARDS down the trail we found my trophy. "He's a real beauty, son, not bad for your first day hunting bucks." After tagging and field-dressing the deer, Art carried my bow while I dragged the animal to the truck.

The first week of season passed by quickly. At first I was spooking every doe that came by when I drew my bow. But as time went on I began to learn when the time was right.

Each day Art would quiz me on what happened while on stand. The ninth day I drew on 12 does and none of them saw me. "Where are the bucks?" I asked him.

"I think you're ready; tomorrow you'll see him. Good night," was all he said as he went into the house.

I wondered how he could be so sure—so far all I'd seen were does and fawns. I had a hard time sleeping that night.

It was cloudy when I awoke in the morning. Art was waiting for me at the swamp; he told me to take the No. 1 stand. It was the first time he'd told me to sit there.

Sunrise seemed to take longer than usual. I sat in the dark, believing today was the day I would harvest my first buck.

The cold didn't seem to bother me as much as the day before. At 8:30, three does walked by me at 10 yards. They no sooner were out of sight when I saw him coming. A nice 8-pointer was walking directly down the does' trail. My heart was beating so hard, I was sure he would hear it and spook. Just before he was in my 12-yard opening he veered to the left and walked straight away from me. I raised my bow to shoot when I could see him through an opening at 30 yards.

Just as I started to draw I remembered Art's words, "Only take a sure thing, one arrow, double lung, quick kill shot." I couldn't shoot; I didn't want to let my coach down or take a chance on wounding such a magnificent animal.

I sat there watching two squirrels playing tag. The buck suddenly reappeared, heading back up the trail. As he stepped out from behind a tree at 12 yards, offering a broadside shot, I released. At the sound of the bowstring the buck took off down the trail. The trail hooked to the left at 30 yards out and I lost sight of my quarry.

I replayed the shot over and over in

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For a Friend . . .

my mind as I waited for 30 minutes, as Art had instructed. Just as I started to leave my stand I saw Art about 50 yards away, watching me with binoculars. I wondered how long he'd been sitting there. Did he see me draw on the buck the first time? Did he see me shoot?

I was a nervous wreck when Art walked over. "You learned well, young man, now let's go get your buck," he said while shaking my hand. "By the way, I was sitting there all morning," he said, grinning.

Fifty yards down the trail we found the deer. "He's a real beauty, son, not bad for your first day hunting bucks." After tagging and field-dressing the buck, Art carried my bow while I dragged the animal to the truck. Two days later Art harvested a 10-pointer.

One week before Christmas, Art had a stroke and died. Hunting will never be the same without the Coach. Everytime I go afield he's with me in my thoughts, watching and observing the hunt.

Christmas morning, a package arrived with a card. It was a new bow and the card read: "This is for you, Brett. You've learned well; keep the spirit alive for me. The Coach."

Landowner Reporting Requirements

Landowners who harvest deer or turkey on property for which they are not required to be licensed must nonetheless report their kills. Whenever you harvest a deer or turkey on your own property, send a postcard to the Commission's Harrisburg headquarters with the following information: your name and address; date of kill (month/day/year); county in which killed; township in which killed; zone of kill (for turkeys only—zones are listed in the hunting and trapping digest); state whether antlered or antlerless deer (deer having no antlers or both antlers less than three inches long are antlerless); if antlered deer, state number of points; hunting arm used (rifle, shotgun, handgun, muzzleloader, bow, compound bow.) The information must be mailed to the Commission within 10 days of kill.



DAVE HUFFMAN, Mercer, proudly displays the trophy he dropped at Pymatuning last year, proving that hunters can find more than just waterfowl at the Game Commission's wildlife management area.

Known for its great waterfowling, the management area also offers terrific deer hunting.

Pymatuning's 'Other' Hunt

By John Crooks

"SHORTLY AFTER shooting time this huge buck ran up to me and skidded to a halt," the excited hunter said. "I took a deep breath, cocked the hammer on my flintlock, set the trigger and aimed. I fired, but the flash powder wouldn't ignite. The trophy of a lifetime quickly disappeared.

What a Day

"Luckily, an hour or so later, another buck nearly ran over me. I said a quick prayer and squeezed the trigger. The gun roared, and when the smoke cleared the buck was down. What a day. Deer were everywhere."

Even with the large number of deer in the state, many hunters don't fill their tags in the regular firearms season, and they take advantage of the late season primitive arms hunts.

Each year, the Pymatuning Wildlife Management Area holds a special primitive hunt, and the odds are quite good that sportsmen will at least see exceptional whitetail bucks. Many hunters report seeing between 50 and 100 deer—including a good many trophy bucks—on the opening day of the special hunt.

Pymatuning, located near Linesville, Crawford County, is a prime example

RON STORMER, also from Mercer, is certainly pleased with the trophy 12-point he dropped on SGL 214 during the first day of the special primitive arms deer season. The hunt is held to help keep deer numbers within the carrying capacity of the area.

of modern wildlife management at its best. It's known as one of the finest waterfowling areas along the Atlantic Flyway. Each year about 25,000 Pennsylvania waterfowlers submit applications for the management area's goose blinds, and 1,000 are chosen by public drawing. The annual goose harvest averages about 2,500 birds.

In the shadow of this great waterfowling opportunity, Pymatuning is rapidly gaining recognition as a trophy deer hunting area as well.

Each winter, usually around the last Friday in December, Pymatuning opens sections of its 5,000 acres to bow and flintlock hunters. This past year, thanks to the cooperation of Land Management Officer Keith Harbaugh, I was able to observe and photograph the hunt.

Per Keith's instructions, I arrived at eight o'clock. It was a blustery cold, snowy morning as we headed for an observation tower, from which we could view most of the management area. It was a scene reminiscent of a Civil War skirmish. Sporadic gunfire was heard in all directions, and smoke billowed from the muzzleloaders of orange-clad hunters attempting to fill their tags. We saw deer everywhere; I counted more than 50, including two huge bucks.

Later that morning, I photographed a jubilant hunter with a trophy of a lifetime. Ron Stormer, Mercer, shot a magnificent 12-point that could rank high among Pennsylvania state record deer when the new list comes out in another year or so. Stormer's success story is an interesting one.

"I wasn't fortunate enough to draw one of the special permits for this hunt," Stormer said. "So I applied for a 'no-show' permit at the administration building that morning. Again I was disappointed, and I nearly went home.

"Instead, I decided to hunt directly across the road from the management



area. I watched intently for a couple hours, listening to the steady drone of distant muzzleloaders across the road. I could hardly believe my eyes when around 9:30 I saw this huge buck coming out of the management area. He and several does crossed the road directly in front of me and entered the public area. At my shot, the buck folded; it was only then that I realized how big he really was."

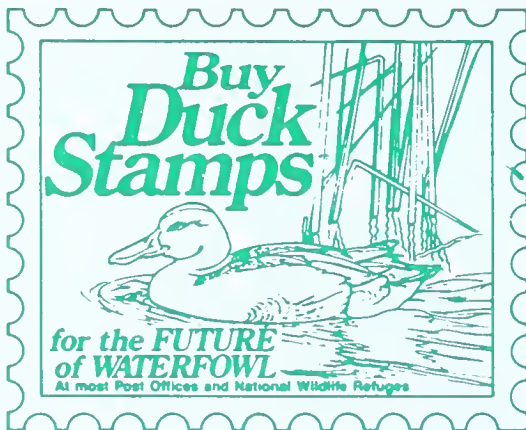
Later in the day, LMO Harbaugh provided details on the hunt.

Trophy Bucks

"This has always been a very popular hunt with our muzzleloader and archery hunters. It's well-known that the management area holds some real trophy bucks.

Last year, 30 archers and 70 muzzleloader hunters were permitted on the management area each day. The quota for this year's hunt hadn't been determined at press time.

I asked Harbaugh why a deer hunt was held in an area that's primarily oriented toward waterfowl management.



"We must keep the deer herd within the carrying capacity of the management area," he said. "The deer consume a large portion of the corn crop, and the special hunt also provides an additional sporting use for Pymatuning."

This year, the public drawing for the special primitive arms deer hunt will be held Wednesday before Thanksgiving. Applications for the hunt can be obtained from the Pymatuning visitors center or the Commission's Northwest

Region office in Franklin. Hunters can also request applications by writing Pymatuning Wildlife Management Area, RD 1, Hartstown, PA 16131. A self-addressed, stamped envelope must be included. Completed applications must be received at Pymatuning prior to the drawing.

It's not unusual for selected hunters to fail to show up, and a few "no-show" applicants are admitted each day. The hunt is for black powder firearms only.

When hunters arrive at Pymatuning they're given a detailed map and are fully briefed on the management area's rules. All aspects of the hunt are closely monitored by staff, and safe and ethical hunting practices are strictly enforced.

The Pymatuning Wildlife Management Area has set an example for other state and federal agencies to follow, and the Game Commission can certainly look on it with pride. If there's any doubt about how good it is, just ask one of the sportsmen who've had an opportunity to hunt there.

STATE GAME LANDS 314, a 3,131-acre tract along the shores of Lake Erie, acquired from the USX Corporation through the Western Pennsylvania Conservancy, was formally dedicated last July. Participating in the unveiling of the monument commemorating the acquisition were U.S. Congressman Thomas Ridge, former chairman of USX David M. Roderick — for whom the tract has been named — Western Pennsylvania Conservancy President John C. Oliver, and PGC Executive Director Pete Duncan.



Having a Field Day

Story and Photos by J. Scott Rupp

Associate Editor: GAME NEWS

A LITTLE GIRL with curly red hair sprinted down the path, knees high and arms flailing as she concentrated on the terrain.

"I hit one, Dad; I hit one," she yelled to her father, who trotted a few yards behind.

"I know you did," he said, sounding a bit winded.

"I hit one, I hit one," she called again, never breaking stride.

Moments earlier the girl, no more than eight or nine, had squinted through her glasses and sent an arrow sailing into a three-dimensional foam deer target. One out of three from a light bow. Archery was one stop on the Cherokee Run, which requires participants to race from station to station where they shoot bows and blackpowder arms, throw hatchets and knives, and start fires with flint and steel.

It was a big hit with the kids who attended the Youth Field Day, held June 15 in Franklin and hosted by the Franklin Izaak Walton League club. The event was put together by Northwest Sportsmen for Youth, a coalition of local sportsmen's clubs, sporting organizations and the Game Commission.

The Cherokee Run was popular, but no less so were the trap, skeet, sporting clays, archery, rimfire rifle, blackpowder, airgun, trout fishing and fly-tying that kept more than 250 youths and their parents busy the better part of a hot sunny Saturday.

The event was initiated by Northwest



The Youth Field Day held in Franklin brought more than 250 kids to the firing lines, where they spent the day shooting shotguns, rifles, airguns and black powder arms.

Region Information & Education Supervisor Bob MacWilliams. Back in February he met with area sportsmen's organizations to plan a youth shoot. The motive: to spark hunting and shooting interest among today's young people.

"The idea was to involve everyone—that's where the Northwest Sportsmen for Youth coalition came from. The shoot's not a 'Game Commission project,' not a 'Franklin Ikes event,'" MacWilliams said.

"We pulled together the sportsmen of the region for a cause—to get our young people active in the sport we love and to perpetuate our hunting and shooting traditions. The response was fantastic."

Nineteen sportsmen's groups—including Pennsylvania Deer Association and local chapters of Ducks Unlimited and National Wild Turkey Federation to



The youngsters at the field day benefited from individual instruction, provided both by wildlife conservation officers and members of local sportsmen's groups. The event was "overwhelmingly sportsmen run," MacWilliams said.



Participants were able to shoot a number of different firearms, and they were treated to an in-depth look at various hunting tools, how they work, and what their advantages and limitations are.



name just a few — teamed up to organize the event. More than 100 donated invaluable funds, and the effort.

It was a fairly large undertaking, requiring a lot of planning and coordination.

"The goal was 200 kids, but we figured we'd do well to get 100 by the deadline we were already set for, turning people away. We tried to notify them when we could."

The youngsters, most of whom wore shirts (donated by Franklin County) when they signed in, exhibited some fine shooting skills.

"I had one kid who had a lot of experience," a range instructor said. "Even though he was half around; but he broke down."

At lunchtime — where many cans of sodas were downed — MacWilliams posed a question around the podium.

"If we were to do this again, would you come back?"

Hands shot up from the crowd. As if there was any doubt.

On the bullseye below, many of the kids were not legal age. Though the posture at the will lead to a seat in the class.

Field Day

ate game and fish agencies to
5 sponsoring businesses con-
wer and prize merchandise to

ing, yet because of excellent
oot went off without a hitch.

Williams said, "and I initially
. But by our pre-registration
ver 200, and we had to start
ir names and addresses so we
is again."

ut in red "Youth Field Day" T-
-n-Save) they were presented
xemplary safety behavior and
ntial as well.

ired a shotgun in his life," one
e he shot, the gun spun him
ut of five targets."

an 1,000 hot dogs and untold
kids, parents and staffers—
the crowd that had squeezed

ow many of you would like to

red shirts.



Woodlore such as starting fires with flint and steel was part of the Cherokee Run, above. At right, WCO Dave Donachy presents a firearms safety lesson—an integral part of field day instruction. Hands shot up from a sea of red shirts when Bob MacWilliams, below, asked the youngsters if they would like another field day.



in rifle range, above, shooters engaged
es and easy marks like balloons. Archers,
en all shapes and sizes. Surprisingly,



Once in a Lifetime

WESTMORELAND COUNTY—Students and instructors at the Youngwood Sportsmen's Club April hunter-ed course were treated to a once in a lifetime experience. Deputy David Keck and I investigated the case of an orphaned bear cub. The mother had failed to nurse it for several days and a rainstorm was approaching, so we picked up the cub and tried to find a foster mother. We notified Land Management Supervisor Dennis Jones to start looking for a foster parent, and in the meantime we gave an impromptu black bear program to the HTE class. After a photo session at the club, we transported the young animal to the regional office where Dennis took over. At last report, the cub's introduction to a female and her young was successful. —WCO J.V. Stefko, Greensburg.



Oh, No

TIOGA COUNTY—A local sportsman was telling me how he'd quit his spring gobbler hunt at exactly 11 a.m., even though he had a nice tom within shotgun range. I told him that was being particularly honest, especially because quitting time wasn't until noon. —WCO Steve Gehringer, Mansfield.

Drought Makes Point

CRAWFORD COUNTY—Last spring's dry weather brought to mind, as well as to view, the delicate balance of nature. It also served as a stark reminder of the importance of wetlands. These habitats are essential to the survival of many species, including man. If next spring brings normal rainfall, we shouldn't quickly forget that beaver dams, marshes, and other wetlands may be the key to our future water storage. —WCO Michael G. Ondik, Saegertown.

Stop and Say Hello

PHILADELPHIA COUNTY—Once again a new class of WCO trainees is enrolled at the Harrisburg headquarters. An important aspect of their training involves working with veteran officers during the fall hunting seasons. The trainees live with the families of the officers to whom they're assigned. So if you see an unfamiliar face checking hunters this fall or in attendance at a sportsmen's club meeting, be sure to welcome the trainee to your county. —WCO Richard J. Shire, Philadelphia.

No Warnings

SCHUYLKILL COUNTY—Many people aren't aware that grass growing on game land roads was planted by our Food & Cover Corps. The greenery serves as home to many insects that in turn provide turkey and grouse poults with the protein-rich diet they require. Uncaring people who illegally operate off-road vehicles on game lands not only disrupt this food chain, they sometimes crush poults hiding in the grass. There are no warnings for those who ignore the signs and joyride on the game lands in this district. —WCO Stephen S. Hower, Tremont.

Hope for the Future

ERIE COUNTY—While patrolling during spring gobbler season, I noticed a young girl of about 11 or 12 years of age walking along the road. In each hand she carried paper cartons and other debris she'd picked off the roadway. The least I could do was offer her a burlap bag to carry the garbage. It must be difficult for young people to understand those who have no regard for the natural world. The girl's determination to help nature made my day.—WCO Jack Farster, Albion.

Mourning a Loss

CAMERON COUNTY—Pennsylvania sportsmen lost a dear friend last April when U.S. Senator John Heinz died in a plane crash. His voting record on Second Amendment and environmental issues was outstanding. We'll all miss him.—WCO Joe Carlos, Driftwood.

Making Movies

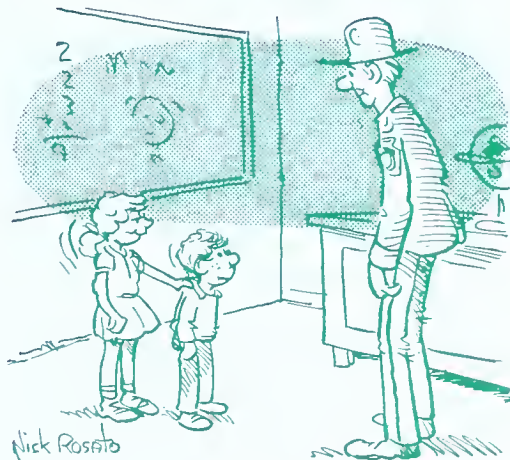
GREENE COUNTY—Checking hunters last spring I was surprised to find three people properly licensed and dressed in full camouflage but not carrying guns. They were carrying a video camera to record their buddies' successes and failures, and I'll bet they had as much fun as the hunters.—WCO R.S. Ansell, Rogersville.

No Joke

ADAMS COUNTY—The June GAME NEWS contained my "Field Note" about the unusual variety of wildlife reported in my district and neighboring ones. The heading "About Those Elephants" was in jest, but about the time the magazine came out I got a call from a concerned citizen. He wanted to report several elephants sweltering in the sun just outside Gettysburg. Deputy Paul Helwig and I checked it out; the elephants were just passing through, taking a refreshing break from the confines of their circus trailer.—WCO Larry Haynes, Gettysburg.

Men of Good Will

We're all goodwill ambassadors for America when foreign guests visit Pymatuning. Maintenance man Cecil Calladine was mowing the grounds and found a wallet and cash belonging to a student from Sweden. We returned his property. For his part, the man got to see both wildlife and American hospitality while visiting a Game Commission facility.—IES Robert G. MacWilliams, Sandy Lake.



Fair Trade?

PERRY COUNTY—WCO Jim Brown and I presented a program to third-graders at Susquenita Elementary School at Camp Morehart. We'd brought a mounted bear cub as one of our props, and after the presentation one young lady asked if we could make a trade. If we would let her have the cub, she would gladly give us her younger brother.—WCO Leroy Everett, Newport.

Worthwhile Stop

Late last spring, I received a pleasant surprise when I stopped along I-80 to stretch my legs. I looked back into the woods and saw an unusual color—one I immediately recognized as belonging to pink lady's slippers. There were 10 or 12 in bloom. I was fortunate to stop in the right place at the right time. Many outdoorsmen have spent a lifetime in the woods and have never seen this wild orchid.—LMO Ned Weston, West Sunbury.

Last Supper

CLEARFIELD COUNTY—Rich Lange, DuBois, harvested a nice spring gobbler and took the trophy to a local taxidermy shop. While skinning the bird, the taxidermist noticed its full crop and cut it open. Inside he found a dozen green snakes from six to 18 inches long. The bird's last meal totaled about 140 inches of snake. —WCO Colleen M. Shannon, Luthersburg.



Without a Trace

ELK COUNTY—Bear damage to beehives has been reduced through the use of electric fences. But I've found some bears possess a good deal of determination or intelligence. One bear continually raided a bee yard by digging under a fence. I solved that problem and then set a culvert trap. The bear would take the bait all the way to the trap but wouldn't touch what was on the trigger; he left no hair or other evidence where he entered the fence. Next I set a snare with bait on both sides of it, and the bear took bait on one side but wouldn't touch the other—thereby avoiding the snare. It raided the hives without leaving a trace. I hung balloons filled with ammonia and coated with honey on the fence, but the bear wouldn't touch them. I finally caught the animal in a foot snare, and I relocated it. I never did figure out how it got through the fence without leaving evidence. If anyone sees a bear running around with a step ladder or rubber boots, let me know. —WCO Richard S. Bodenhorn, Ridgway.

Taking the Cake

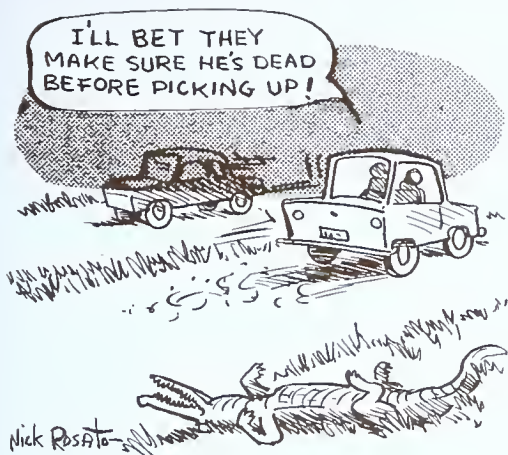
BRADFORD COUNTY—Every Arbor Day we give trees to first-graders. Along with the tree we present them a chart on which the students can track the growth of the trees and themselves. The chart has 12 years on it to coincide with the kids' graduation from high school. Each year Mrs. Leonard at Canton Elementary School wants to know what she can do for me. Last year I told her I liked cake. This year I was unable to deliver the trees; naturalist Stacey Hartwick from Mt. Pisgah State Park presented the Arbor Day program instead. Mrs. Leonard had baked me a cake in the shape of a tree and I wasn't there to receive it. —WCO William A. Bower, Troy.

Great Opportunities

MERCER COUNTY—Those who enjoy goose hunting at Pymatuning shouldn't be discouraged if they don't draw a management area blind. There's plenty of excellent goose hunting in the northwestern counties. SGL 270 at Lake Wilhelm, the Shenango River Reservoir, and the multitude of smaller swamps, ponds and impoundments around our county provide great hunting. Our goose population is tremendous; we had a fantastic nesting season and we saw goslings everywhere. I'd like to see you in Mercer County; just remember to bring your license, federal duck stamp, steel shot and your watch (for shooting hours). —WCO Donald G. Chaybin, Greenville.

Traveling for Turkeys

GREENE COUNTY—Any doubts you might have about the positive impact hunting has on the economy would have been dispelled if you were out during spring turkey season. In my district, I checked or observed approximately 50 hunters the first day. Only two were county residents. Many had traveled more than 100 miles to hunt here—several were from the Centre County area. —WCO Robert P. Shaffer, Carmichaels.



Old Habits

MONTGOMERY COUNTY—In spring my family and I took a much-needed vacation to central Florida. I was hoping to get away from my daily routine of subconsciously counting roadkilled raccoon, muskrat, skunk and opossum. But, alas, I found myself counting roadkilled armadillo and alligator. The players may change, but the game remains the same.—WCO Doug Killough, Perkiomenville.

It's No Race

The more you hunt, the more you learn about hunting. Too often I think we believe that only the hunter who kills game is a "good" hunter. If I were a stranger to Pennsylvania, I'd much rather go afield with someone who'd had 20 unsuccessful days of hunting than one who hunted for an hour, bagged his quarry and went home. We need to enjoy the hunt and learn it's not a race to see who can fill his tag first.—LMO James Deniker, Sandy Lake.

Cowabunga, Dude

LANCASTER COUNTY—After presenting a program to Cheryl Billow's class at Grandview Elementary in Mount Joy, I received individual thank you notes from the students. I enjoyed reading the comments, and many of the letters made me chuckle. Somehow I never considered myself a "radical dude in an awesome costume."—WCO Dennis L. Neideigh, Salunga.

Playing His Song

TIOGA COUNTY—My wife and I had the pleasure of watching two pairs of indigo buntings that stayed around our house for a few days. We have a cassette tape of bird songs, and we played it for the buntings to observe their reactions. They ignored all songs but those of their species. When we replayed the bunting songs a male would immediately fly to the tree under which we were sitting and stay there as long as we played them.—WCO Frank Bernstein, Middlebury Center.

Check It Out

WARREN COUNTY—SGL 309 is a new game lands located just west of Tidioute in the Campbell Hill/Babylon Hill area, and it has about 975 acres. From the few scouting trips I've made, it looks like an excellent spot for deer, bear, turkey, grouse and squirrel. If you like hunting new areas, SGL 309 would be a great place to try this season.—WCO James W. Egley, Tidioute.

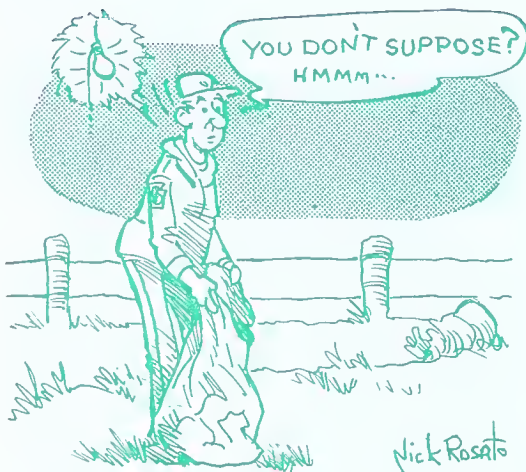


At Last

CHESTER COUNTY—The end of summer brings a sigh of relief from my beagle, Boomer, because he no longer has to deal with an endless parade of orphaned and confiscated wildlife. Over the years, poor Boomer has shared his living space with raccoons, turkeys, groundhogs, countless fawns and even skunks. I'm sure Boomer wishes humans would learn to leave wildlife alone.—WCO William C. Ragosta, Nottingham.

Ruining Our Image

LACKAWANNA COUNTY—Most hunters this past season were sportsmen and women, acting safely and ethically while enjoying their time afield. Unfortunately, there are always those who manage to destroy the hunters' image. During deer season, one slob shot and killed a goat tied to a barn—20 feet from a house. In another incident, a horse in the middle of a field was killed. The people responsible were never apprehended and, of course, the owners of those animals now view all hunters as irresponsible, bloodthirsty maniacs. It's no wonder that more and more land is being posted. —WCO Timothy Conway, Dunmore.



Left Holding the Bag

BRADFORD COUNTY—My deputies and I have dedicated a percentage of our law enforcement program to the apprehension of litterbugs. One of my deputies recently came across some garbage bags along Route 220. He couldn't find any usable evidence in the first bag and went through the rest without turning up any clues. Feeling disgruntled, he left—only to find more bags down the road. He enthusiastically sifted the bags for evidence. I wish I'd been there when he finally realized they were placed there on purpose by members of the Adopt-a-Highway program. —WCO Richard P. Larnerd, Warren Center.

Chocolate Poisoning

WYOMING COUNTY—Last winter a local hunting camp hid 50 to 100 pounds of chocolate to lure bears into the area. Deputy Marshall Stover found a dead bear cub lying next to the bait and another dead cub about 300 yards away. Neither cub showed signs of physical injury, but they both had a lot of chocolate in their stomachs. My suspicions that the bait killed them were confirmed by a veterinary report documenting the chemical theobromine present in chocolate is toxic to animals if ingested in large amounts. —WCO William Wasserman, Tunkhannock.

Wait, Come Back!

LUZERNE COUNTY—Back in March, Food & Cover Corps foreman Pat Grimes and Jeff Adams were pruning apple trees on game lands. A grouse came up to them and remained around their truck; it allowed them to hand feed it, and it even flew into one of the trees they were pruning. I didn't believe the story, and I asked Pat to show me the bird. Sure enough, when we got out of my vehicle the grouse approached. He followed us up and down a railroad bed and came within a foot of our outstretched hands. As we left the area, I could see the bird following us down the road until it couldn't keep up. —WCO Edward J. Zindell, Wilkes-Barre.

Deadly Colors

SOMERSET COUNTY—Yellow electric fence insulators on metal posts are deadly to hummingbirds. The birds are attracted to the bright color and are electrocuted when they stick their bills in the small space between the insulator and the post as if feeding on a flower. The problem is easily corrected with a can of black spray paint. Anyone considering installing a new electric fence should avoid red and yellow insulators; black ones are available for the same price. —WCO C.E. Guindon, Jr., Boswell.



DENNIS R. FREDERICKS, left, of McMurray, was appointed to the Game Commission last April, replacing C. Dana Chalfant. In other action, George Miller, right, Brockway, was recently appointed to a full, 8-year term on the agency's governing board. Miller had been serving as a commissioner since 1989, completing the term left vacant by the resignation of Taylor A. Doeblner.

Orange Proposed for Turkey and Small Game Hunters

AT ITS JUNE meeting, in an effort to reduce turkey hunting accidents, the Game Commission passed proposed rulemaking that would require all turkey hunters—and general small game hunters—to wear daylight fluorescent orange.

As proposed, hunters afield for the spring gobbler season would have to wear a minimum of 100 square inches of fluorescent orange in the form of a hat or sash while moving, and to wear or display an equal amount of orange within 10 feet of their stationary calling positions. The package of safety regulations would also limit maximum shot size to No. 4 lead and No. 2 steel, for turkey and regular small game hunters.

The action came after the Commission spent several months reviewing hunting accident statistics and gathering public comment on turkey hunting safety. While most categories of hunting accidents have declined in recent

years, turkey-related accidents have shown an alarming increase.

During the 1990 fall season, 38 turkey hunters were shot, three fatally. In the recent 1991 spring season there were 15 accidents involving 18 victims. In nearly every case, victims were shot in mistake for turkeys.

"If we're going to do something, let's do it right," said Commission president Edward L. Vogue, Jr., Du Pont, during a discussion on the proposed regulations.



"We have a growing problem and an obligation to act on this matter," said vice president Edson S. Crafts, Huntingdon.

The new safety regulations will be considered for final adoption during the Commission's October meeting. If approved at that time, the regulations will take effect for fall hunting in 1992 and the spring gobbler season in 1993.

As proposed, all small game hunters would be required to wear a minimum of 250 square inches of fluorescent orange on the head, chest and back, visible from 360 degrees. Dove, waterfowl and crow hunters would be exempted. Commissioners opted to require all small game hunters to wear fluorescent orange, rather than ban the use of rifles as had been proposed by some individuals and groups.

In other action, the Commission approved entering into a Memorandum of Understanding with the U.S. Fish and Wildlife Service in a pilot Migratory Bird Harvest Information Program. The program will provide states and the federal government with a tool to monitor annual hunting harvests of all migratory birds, including waterfowl, doves and woodcock. The program is scheduled to begin in 1992 with up to six states, including Pennsylvania, participating. By 1998, all states will be taking part.

Migratory bird hunters will be re-

quired to carry a harvest information card and to complete a short name and address form. The Fish and Wildlife Service will use the forms to contact a sample of hunters for information about their hunting success.

The Commission also approved a \$9,000 grant to Penn State to complete the last phase of a three-year study on the distribution and relative abundance of goshawks in Pennsylvania.

New Commissioner Seated

Dennis R. Fredericks of McMurray participated in his first meeting as a member of the Pennsylvania Game Commission. Fredericks was appointed to the Commission April 16, 1991, replacing C. Dana Chalfant of Gibsonia.

Born October 28, 1952, Fredericks is an environmental engineer with Consolidation Coal Company. The southwestern Pennsylvania resident brings a varied background of associations with sportsmen's groups and conservation organizations to his new post. He's been active with Ducks Unlimited, the Society of American Foresters, Western Pennsylvania Conservancy, Unified Sportsmen, Ruffed Grouse Society, and the Washington County Sportsmen and Conservation League.

"I'm looking forward to eight years of progress in working with all Pennsylvania sportsmen," Fredericks said.

21st Class of Student Officers

CONSERVATION OFFICERS are trained, not born. Much more than a general interest in wildlife and the outdoors is required to carry out the many and varied duties of a Pennsylvania wildlife conservation officer.

The commission's 21st class of wildlife conservation officer trainees is currently enrolled at the Ross Leffler School of Conservation. Upon successful completion of 38 weeks of intensive training, the 26 officer trainees will be assigned to vacant positions throughout the commonwealth.

The 26 men who reported June 2 to the training facility, located at the agency's headquarters complex in Harrisburg, represent the final selections from approximately 1,000 applicants. They were chosen through a rigid series of written, oral and physical examinations.

Included in the rigorous 38-week curriculum are subjects dealing with wildlife management; media and public relations; laws governing wildlife and fish; conservation information and education; legal procedures; bird and

mammal and tree and shrub identification; firearms training; unarmed self-defense; and habitat management practices.

"We bring in the best people in their fields as instructors," said William L. Hutson, chief of the training division. "In many cases those people are Game Commission wildlife conservation officers, wildlife biologists, foresters, supervisors and management staff.

"We also use people from outside the agency. Practicing defense and prosecuting attorneys, college professors, and other experts from a wide range of specialty fields serve as training school instructors."

In addition to classroom study, trainees are assigned to work with field personnel during the major hunting seasons.

The commission's first class of trainees entered the Ross Leffler School of Conservation—then located near Brockway, in Jefferson County—on July 2, 1936. Since that time, 451, including three women and three officers from other states, have graduated. This is the second class to attend the new Harrisburg headquarters training facility.

The average age of the current class is 30. Nine trainees served as deputy wildlife conservation officers. Fourteen are married and 18 are veterans.

Members of the class come from all areas of the state with 10 from the northwest; five from the southeast; four, northeast; three each from the southwest and northcentral; and one from the southcentral. Members of the 21st class, along with hometown and counties follow:

<i>Name</i>	<i>Hometown</i>	<i>County</i>
Mark A. Allegro	West Pittsburg	Lawrence
Steven D. Bernardi	Dauphin	Dauphin
Eric D. Bowman	Hermitage	Mercer
Arthur L. Brunst, Jr.	Spartansburg	Crawford
Richard T. Cramer	Warren	Warren
Francis J. Dooley	Moscow	Lackawanna
Thomas A. Fazi	Pittsburgh	Allegheny
Michael A. Girosky	Wattsburg	Erie
Leonard A. Groshek	Wilkes-Barre	Luzerne
Shawn E. Harshaw	Altoona	Blair
Christopher J. Heil	Edgemont	Delaware
Robert W. Johnson	Milford	Pike
James F. Jolley	Trucksville	Luzerne
A. David Judt	Ingomar	Allegheny
Jeffery T. Kendall	New Castle	Lawrence
Charles J. Lincoln	Quarryville	Lancaster
Donald S. Martin	Indiana	Indiana
Bruce C. Metz	Schwenksville	Montgomery
David E. Mitchell	Ashland	Schuylkill
Bradley J. Myers	Sigel	Elk
Richard R. Palmer	Tidioute	Warren
Jeffery A. Schwab	Oil City	Venango
Thomas M. Smith	Mill Hall	Centre
Terry D. Wills	State College	Centre
Michael D. Wojtecki	Waterford	Erie
Daniel S. Yahner	Franklin	Venango

There For The Watching

"I HAVE SEEN the elephant." In the 1800s, if you wanted to tell someone you had "seen it all," you said you had viewed the proverbial pachyderm. Well, I, too, have "seen the elephant" because I have finally seen the elk—Pennsylvania elk, that is.

It took me only 20 years of living here and hearing about Pennsylvania's elk herd to finally go see it. Last September I took a trip to the state's elk country, centered in—where else—Elk County. The county was not named for its current herd of wapitis: these have been residents since only the early 1900s. The commonwealth's native elk were exterminated before 1870 and replaced by western elk in a series of stockings across the northern tier from 1913 to 1926.

Never mind that these weren't the originals, I still had to go see them. After all, I had seen virtually every other type of wildlife the state has to offer: bears, coyotes, beavers, weasels. I wondered, would western elk "fit" in an eastern forest setting? I couldn't imagine anything bigger than a deer in a Pennsylvania woodland scene.

I remembered being awestruck the first time I saw wild moose in New Hampshire. To me, moose were something that "belonged" only in the western states and Alaska, thousands of miles away. I couldn't believe I had only to drive a few hours (back then my home was in the northeastern part of the state) to see them.

I was told the best way to see moose was to drive toward the Quebec border at dawn and watch the roadside. I peered into the dim underbrush, from long custom, looking for something deer-high and brown. Suddenly there stood a dark bulk, like a truck with antlers. I yelled to the driver, "Stop, stop, I saw a moose." "Are you sure it's a moose?" he asked. I laughed. There's just no mistaking a half-ton moose when you see one.

First impressions are the most telling. My first thought about New England's moose was that here was a serious animal. There's something coy about a whitetail that's not present in a moose. The moose had a primitiveness that reminded me of mastodons and advancing walls of ice. They looked "right" in the knee-deep muck of glacier-made ponds.

If I hadn't seen the moose, I doubt I would have been as anxious to see the elk. I began to feel I had missed something back in my home state. From anywhere in Pennsylvania, elk country is close enough for a weekend jaunt, if not a day trip. From the moose, I learned that National Geographic specials and zoos were nothing compared to seeing a wild animal in the woods.

Yearly, more than 7,000 people visit Pennsylvania's elk country, centered in southeast Elk and southwest Cameron counties. Draw a circle from the Dents Run area, and extend it up to the Saint Mary's airport, and you've got the main concentration. According to the Game Commission, the herd today numbers about 150 animals—bulls, cows and calves. Nearly half of their home is state game land or state forest, and it is hoped more unspoiled territory can be added to their range.

My first elk "experience" was just sign, but that was enough to whet my interest. It was while I was doe hunting on SGL 14 in western Cameron County that I noticed the tracks. Too sharp-

Another View...

by Linda Steiner

THE OTHER thing I've come to realize is that I wasted too many years when I could have been elk watching. Here's hoping the same can't be said of you. Elk are an amazing and wonderful addition to the state's wildlife.

toed to be cattle, too big to be deer, the prints and the ripped trees clued me that I was in elk country. I spent as much of the day looking for elk as tending to the business at hand, which was deer hunting. Several other hunters in the area had seen an elk cow and a calf. I was almost disappointed at having taken a doe and, therefore, not being able to hunt, and to look for elk again, the next day.

The following fall I went back, just in time, I was told, for the bugling. Pennsylvania elk rut in September and, like their western relatives, give voice in a high-pitched quavering whistle or bugle. A friend who knows the area and Pennsylvania elk advised me to look for them "around the St. Mary's airport, Winslow Hill and the Dents/Hicks Run area."

The first evening of our two-day elk search weekend, my husband and I took our cameras for a hike to the top of a mountain in the middle of prime elk territory. Following the friend's directions, we found a fenced area, which I later learned was an elk enclosure. This was to give vegetation in the timbered acreage a head start at regrowth before the elk were allowed back in. Elk eat seven times as much as a deer each day, so the precaution seemed wise.

I had no sooner rounded the far end of the elk enclosure when I heard it. My first elk bugle. It was a lot eerier and wilder sounding than I'd expected—like the cry of a loon, only better. Surprisingly, it seemed perfectly natural in the Pennsylvania woods setting, a perfect autumn counterpart to the gobbler's call in the spring. The bugle was close, surely just across the next hollow, and answered by two more far across the hills.

Almost immediately, I found other elk sign: tracks, beds, and a grapevine tangle that was browsed off far above my head. Slashing of saplings by violent



antlers had left trees scarred higher than I could reach, and I felt a small chill. I was used to Pennsylvania deer that stood at most three feet at the shoulder, and whose heads were no higher than mine. Here was an animal to make one feel small and vulnerable.

While a whitetail's live weight is about 150 pounds, Pennsylvania elk will go 500 for cows, and more than 700 for bulls. It was refreshing to know that as long as something as big as an elk was around, we humans weren't kings of the forest. It was also a little intimidating.

Bugled Again

We veered off the game lands road we'd been traveling and walked down a side hollow. Bulls bugled again, one quite close. Ahead was an opening, a small field, and I slowed to a sneak. Suddenly my companion stopped, right in front of me, and raised his camera. I peered, trying to see past the late sun's glare into the shadows beyond. The clicking of the camera told me there was something worthwhile ahead.

My eyes adjusted and there stood a 5x5 bull on the field edge, not 30 yards away. He was statue-still, creamy tan rump toward us, chocolate brown neck and head turned back, white-tipped antlers a sweeping arc. His large dark eyes took us in, and he paused with a bit of leaf still in his mouth. I heard the camera beside me click again, and

brought my own up, feeling the inadequacy of the 200mm lens and the black and white film.

I had just focused the lens when he jumped. I swung instinctively, as if I had a rifle, and shot. Then he was gone. I hoped I had a good impression on the film, but I knew I'd gotten an excellent first take in my mind.

While the moose I'd seen was like something out of prehistory, the elk appeared as if from the realm of fantasy. It was deer-beautiful, slender legged and graceful for its size, the idea of the whitetail taken one step further. When it vanished, it seemed to have taken with it all the elves and fairies, and the woods were unenchanted again without it.

I learned later that walking up on a mature Pennsylvania bull like that is an unusual and lucky occurrence. The best photos we got were in color, but I

did get a usable one in black and white, for which I'm thankful.

Fortunately, that lone bull wasn't the only elk I saw on last September's trip. I watched them in the early morning in the fields at Winslow Hill, both cows and bulls, but at a distance and through binoculars. This aided viewing wasn't the same as that first close encounter, but the bugling lost none of its unforgettable, wild quality. With every sighting, I was accepting elk more and more as a natural part of Penn's Woods, and happy they were there.

After having seen the elk, I now know two things. One is that elk are an amazing and wonderful addition to the state's wildlife, and I hope they'll flourish for a long time to come. The other thing I've come to realize is that I wasted too many years when I could have been elk-watching. Here's hoping the same can't be said of you.

Fun Games

Fun With History

By Connie Mertz

Match each wildlife species with the correct answer at the right.

Beaver ____

Black Bear ____

Deer ____

Elk ____

Hawks & Owls ____

Hungarian Partridges ____

Raccoon ____

Ring-Necked Pheasant ____

Ruffed Grouse ____

Weasel ____

Wild Turkey ____

A. 180,000 killed from 1885-1887 due to the "Scalp Act"

B. Hounds were forbidden for hunting these in 1897

C. Pennsylvania first state to protect these in 1905

D. Use of calls forbidden while hunting these from 1909-1937

E. 50 purchased from Yellowstone National Park in 1913

F. First stocked from Wisconsin in 1917

G. Purchased from Czechoslovakia and stocked in 1925

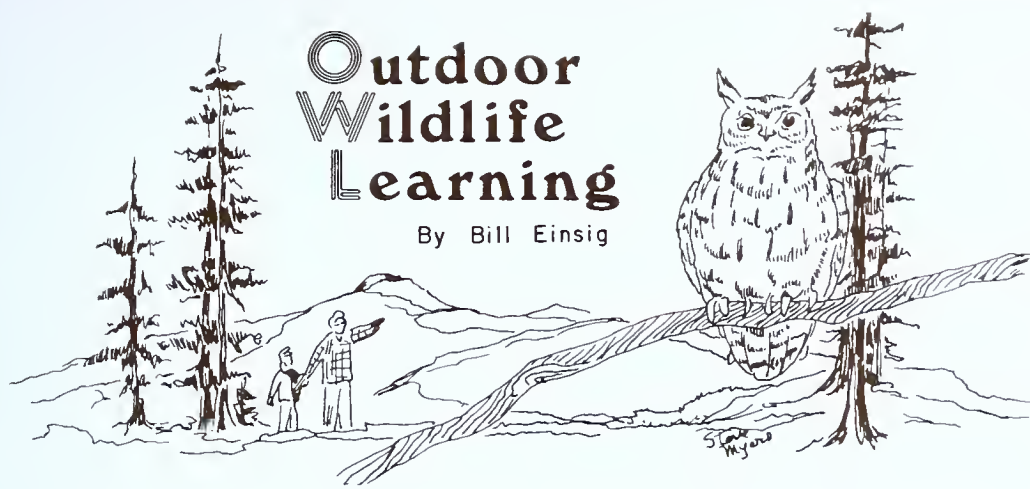
H. Declared "State Game Bird" in 1931

I. Declared a game animal in 1933

J. First stocked in large numbers in 1934

K. Bounty removed in 1954

answers on page 64



Energy Bites

Dear Mr. Owl,

We built bluebird boxes and erected them around our school campus last spring. We want to monitor their use this coming year. How frequently should we check them? E.M., Scranton

Dear E.M.,

Eastern bluebirds begin nesting in late March or early April. About that time, your students should begin checking the boxes every two weeks. After eggs are laid, check the box weekly until the birds leave the nest (fledge). The incubation period for bluebird eggs is about 14 days after egg-laying is complete.

People who monitor large numbers of boxes are most interested in the boxes that are actually being used by bluebirds. They don't want to waste time making frequent trips to unoccupied boxes. However, your situation is a bit different. You probably have relatively few boxes to check and you have lots of helpers to check them. As a result, you might want to start a class project that would schedule weekly visits to your boxes by teams of students as early as the beginning of March or even earlier.

Dear Mr. Owl,

Is it true that a deer population can double its size in just one year? Do most does actually have two fawns each year? L.M., Somerset

Dear L.M.,

Under ideal conditions, a deer herd can theoretically double in one breeding sea-

son. Here's how. Suppose a herd has 200 deer with 100 does and 100 bucks. Assume all the does have two fawns and that all deer survive. Your total would now be 200 adult deer and 200 fawns—400 deer.

The key words here are "ideal" and "theoretically." Many factors inhibit the number of fawns that are actually born and survive. There are also mortality factors, such as winter starvation and highway deaths, that remove adults from the herd during the year. The important point is that whitetails have an enormous reproductive potential. They can increase in numbers in a hurry.

The number of fawns produced by a doe depends on the doe's age and the quality of available food. Does that have better diets produce more fawns. Older does also produce more fawns than younger does.

Let's divide the doe population into three groups: fawns (bred at 6 months of age), yearlings (bred at 18 months), and adults (bred at 30 or more months of age). Remember, most births occur in June and most breeding takes place in November.

Less than half the fawn does conceive during their first November, but those that do, typically give birth to one fawn the following June. Of the yearling does, more than half have two fawns, and almost 75 percent of the adults produce twins. A small percentage of does give birth to triplets while a significant number have single fawns.

It's safe to generalize by saying the typical number of fawns born to a healthy, adult doe is two. Births to fawns and year-

lings tend to reduce this average as do births to adults with poor food supplies.

Dear Mr. Owl,

Last winter, I wanted to teach my elementary students about the need for animals to conserve energy in winter. Do you know of an activity that would do that? V.E., York

Dear V.E.,

Animals have adapted in a number of ways to the reduced food supplies of winter. Some animals migrate to food-rich areas, others hibernate with food reserves in their body fat, and many species run a risky race to see if they can find enough food to help them remain active and survive until spring. One activity I like to use with young students is called "Energy Bites" described below.

Energy Bites

Description: Students take a fall or winter walk and role-play various animals and their needs for food.

Materials: Plastic sandwich bags,
one per student
Energy Bites—Cheerios or
similar cereal
Timer

Procedure:

1. Give each student a baggie with approximately two dozen Energy Bites. Tell the students they will become animals and will try to survive the winter with this amount of stored energy.

2. One student should portray a woodchuck, which is hibernating and does not eat. His body still uses energy, but more slowly than other animals.

3. Another student can represent a bluebird that migrates to an area where there is lots of food. This student is allowed to eat more than the other students and receives more when the group feeds so that he always has an ample supply.

4. After roles have been assigned and Energy Bites supplied, set the timer for three minutes and begin your nature walk.

5. When the timer sounds, everyone has to eat some of their bites, to represent the use of stored energy by their bodies. Woodchuck is sleeping so he uses very

little energy—perhaps one Energy Bite. Bluebird can eat ten Energy Bites while everyone else eats five Energy Bites. After everyone has eaten, reset the timer and continue your walk until the timer sounds again. Then, repeat this same process to represent the inevitable use of stored energy by our body to keep us alive.

6. When you discover berries, twigs or other wildlife food, point them out as winter food for real animals and add a small number of Energy Bites to each bag to represent feeding. Of course, Woodchuck is asleep so he doesn't get any new energy and Bluebird gets more than anyone else.

7. Predators have to eat during the winter, too, but they can't spend more energy in capturing their food than they get in eating it. Quickly assign two students to be rabbits, one student to be a fox, space them a few feet apart and have them race to a finish line about ten yards away. If the fox tags a rabbit, he gets all the rabbit's Energy Bites. (I always bring dead "rabbits" back to life immediately with a new supply of energy.)

This vigorous activity of pursuing prey and eluding predators has a high cost. Rabbits who were chased have to immediately eat 10 Energy Bites and so does the Fox, whether successful or not.

8. At some point on the trail, stop and listen for the sound of an approaching ATV. The roaring engine scares all the animals and, as a group, all run down the trail to get away from the loud machine. But running uses lots of energy, so everyone has to eat more Energy Bites from the bag (except Woodchuck. He probably didn't run in the first place but just slept through the whole scary encounter).

9. Continue adding, eating, and using Energy Bites in these, and other, ways until spring arrives at the end of the walk. Ideally, everyone will have just a few Energy Bites left and will be survivors. Adjust the numbers, timing, and episodes as needed to nearly deplete most bags by the end of the walk.

If you have a question about Pennsylvania's wild heritage, send it to Mr. OWL, Game News, PGC, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

A COOL NIP in the evening air hints at change. September is another transition month marking a passing of the seasons. Summer's sweltering heat gradually gives way to the bold and vibrant colors of autumn.

The month also signals a dramatic change in a WCO's activities. The tempo increases exponentially, and things really begin to hop as I assume my most familiar role: game warden.

SEPTEMBER 4—After several months of information and education activities, nuisance complaints and other duties, I now focus on law enforcement. Evening and night work are becoming more normal as hunting seasons have begun, marked by the recent dove season opener.

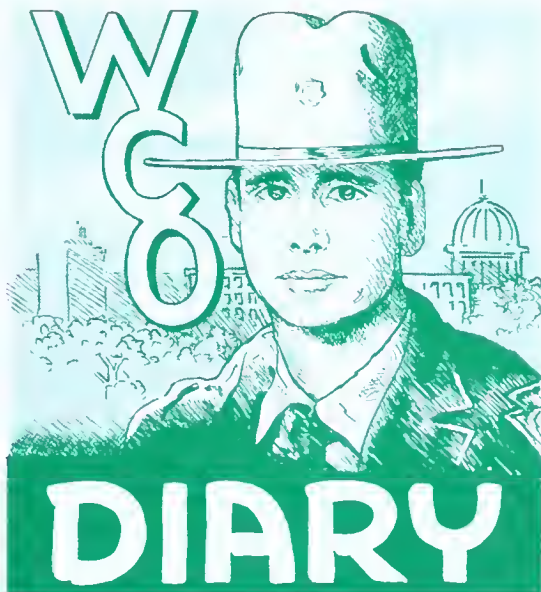
After delivering hunter-ed materials to a class and disposing of a few roadkilled deer, I'm free to resume patrol. The night passes rather uneventfully until I begin checking game lands parking areas. Parking and access lots are used by more than just sportsmen and wildlife enthusiasts. Vandalism, littering, dumping and parties are common. Occasionally, an officer finds himself in a potentially hazardous situation at these popular locations. Drug deals, cult worship, and other bizarre happenings are naturally attracted to these remote or secluded byways. With this in mind, night patrols mandate an extra measure of caution.

It is now almost midnight and I quietly coast into another parking area on SGL 211 in Fishing Creek Valley. In the far corner of the lot I notice the telltale shimmer of automobile chrome in the moonlight. I tactically position my vehicle next to the parked car, flick on my high beams and turn on the flashing red light. Two young fellows squint and cover their faces.

The pair were quietly passing away the hours by downing several beers. I note that neither are of legal drinking age, and I question their ability to drive home safely.

Wildlife conservation officers were recently granted police powers to enforce various crime and motor vehicle codes because we all too frequently encounter infractions during the course of our duties. Understandably, we cannot be expected to ignore these and more serious violations.

The State Police arrive to assist with these two lads. A records check reveals the two had previously been cited for the



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

same offense and can expect to lose their driving privileges again.

SEPTEMBER 6—After attending to the mundane matters of disposing of roadkilled deer, returning phone calls and completing reports, I'm on the road to continue my investigation into recent complaints by residents in an East Hanover Township development. Since the onset of dove season, they have been plagued by quite a bit of shooting in a stand of pines near their homes. They're certain some inconsiderate dove hunters are violating their Safety Zones, and they request my help. No one, however, actually saw any hunters, they only presume the volleys to have originated from these supposed wingshooters.

My previous investigation hadn't revealed any signs of hunting activity in the area. Since the spot harbors a sizeable dove roost, I'm inclined to agree with the local resident's theory. I'll return this evening to see if any shooters take a position near the roost and the homes. All remains quiet, so I begin to snoop about the area in search of any additional clues. Cresting a knoll along a utility line right-of-way, I spot a makeshift target range set up for plinking. Fresh shell casings confirm by hunch that this may be the origin of the alarming shots.

Later, I swing by yet another Hunter-Trapper Education course in the district to

assist with the instruction. I round out the evening by conducting another training seminar for the district's deputy force.

SEPTEMBER 8—This month and the months that follow can best be summed up by one word—Patrol. A continual presence is one of the best methods to ensure compliance with the game laws. I begin the evening on foot, covering as much ground as time and daylight permit, looking for baited areas along the mountains of Fishing Creek Valley. Archery season is fast approaching and some folks in the district have been known to bend the rules of fair chase by enticing their quarry. Salt licks lead the list of deer attractants, followed by pressed molasses blocks, apples and corn. Hikes like this have led to successful prosecutions that would otherwise go undetected. Violators have few excuses when later caught in their stands overlooking bait.

As daylight fades, I continue my patrol in Derry and East Hanover townships. Spotlighting activity is brisk but uneventful. Around 2 a.m. I swing by and check on deputies McCarter and Schmitt. Larry and Bob are stationed at one of the district's more notorious jacklighting locations and the scene of last month's poaching of a trophy 8-point. I hide my vehicle down the road from them and grab my portable radio. The night is calm and clear as I enjoy a leisurely walk along the road. The moonlight casts eerie shadows upon the pavement, as tree frogs and crickets provide the sound effects.

Before I meet Larry and Bob, a car pulls into view and slows by the fields. Out of the passenger side, a spotlight begins to methodically work the fields and soon stops on a small band of deer grazing along a fencerow. What a perfect setup. In the darkness, the deputies glide out onto the pavement, ready to intercept these wee-hour spotters. Already on foot and within 50 yards of the vehicle, I step out from the seclusion of the trees, and aided by cover of night, sneak to the rear fender of the idling sedan.

Visualizing all the possible scenarios, I try to think of something profound or poignant to say as I grab the gun barrel that I'm expecting to protrude from the car's window at any moment. No such luck, though. The occupants continue to merely shine their spotlight on the deer, which are still munching in the nearby

meadow. My position privileges me to some candid conversation.

"The one there in the back with its head down, that there is a buck. They dang near always have their heads down," remarks a passenger.

"Oh yeah, well the one with the green eyes, that's the ol' doe of the bunch. Green eyes; yup, ya can always tell by them green eyes," snaps the passenger in the back.

I'm amused by the trio's bit of natural history wisdom but am growing impatient about their intentions. As they begin to slowly drift forward, I instruct Larry and Bob to intercept our late-night spotters.

Our search reveals nothing but three guys out and about spotting deer. They offer no excuses about the time and admit to knowing better. They just figured they didn't have to worry about being caught. They later settle on field receipts.

SEPTEMBER 15—It's day two of instructing a rather large class of hunter education students at our Harrisburg headquarter's auditorium. The deputies and I are the sole instructors for this course, which gives my main corps of instructors a much-needed break. We take turns covering topics from safe firearm handling to hunter ethics and sportsmanship. The field walk-through exercise concludes the class's instruction and tests the participants in various shoot/don't shoot situations.

SEPTEMBER 21—More night patrols by me and the deputies. I continue to focus my efforts in the southern portion of the district. The night passes uneventfully, except for a few late spotting infractions.

SEPTEMBER 27—After covering more ground both by mountain bicycle and on foot in search of baited areas, I finally stumble onto the first one of the season. Two rather large salt blocks adorn a pair of stumps, close to a tree stand. The setup is ideal, but it seems a strange location because it's only a couple hundred yards from a home. I make note of the area and will return during the season in hopes of finding a violator.

Later, I don some rough-looking clothing and head to the courtroom. While clean, neat, well-pressed uniforms are the rule in court, tonight is an exception. As part of my ongoing deputy training program, District Justice Steve Semic,

Steelton, has offered to preside over several mock hearings. During the summer months, I'd staged mock violations for the deputies to investigate. Their efforts culminated in the final step in the criminal process, the courtroom hearings. I portray the defendant in each of the cases. Steve's insight and expertise are valuable aids in understanding courtroom procedures. The deputies note the tips in their training logs.

SEPTEMBER 28—I've received several tips concerning a Londonderry Township farmer shooting deer in his fields during the evening hours. The law permits farmers to kill deer for crop damage, provided they follow the rules. One requirement is for the farmer to notify the Commission within 24 hours of such killing. To date, I've received no such report from this gentleman, and I'm a bit concerned. I realize the area has an overabundance of deer, and the man certainly is bearing the brunt of the depredation. I'm fearful, however, that he has chosen to take matters into his own hands and has disregarded the law.

Deputies John Flory and Frank Kolaric begin an investigation but are unable to uncover evidence to substantiate the informant's claims. A later interview with the landowner leaves me wondering. He's quite nervous and evasive, leading me to speculate. I continue my probe and the fellow subsequently confesses to shooting seven deer through the course of the summer for crop damage, but he had left each deer where it had fallen. The law requires farmers to report kills in a timely fashion and to field-dress and hold the carcasses until an officer arrives. I have a list of needy folks who appreciate the meat.

The guy settles on a field receipt, and we reach an understanding. I will help him with his deer damage problem, provided he abides by the law.

SEPTEMBER 30—A definite chill fills the night air as I head out for yet another night patrol. I soon settle into a familiar spot from which to launch the evening's vigil. Much of such observation time is spent simply watching and waiting. As I recline on the hood of my vehicle, gazing at the heavens, my thoughts drift back to the events that occurred one year ago tonight . . .

The radio crackles with heavy activ-



Question

May I hunt waterfowl at a farm pond on which a farmer keeps domestic ducks?

Answer

No. Hunting waterfowl on a pond that has domestic ducks or geese would be considered hunting over live decoys. This would violate both state and federal laws.

ity as each regional office dispatches officers to various incidents throughout the listening area. It must have something to do with the phase of the moon, I think. If it's busy at one place it seems busy everywhere. Oh well, the deputies are out in full force so we'll just watch and wait.

Soon I hear an unmistakable sound. "Reading—622," the dispatcher calls.

Uh oh, that's me he wants. I answer his call and am dispatched to the scene of an injured deer just out the valley from my position. I no sooner dispatch the severely injured animal when another call reports shots being fired in Fishing Creek Valley. It turns out that the caller had heard me downing the injured deer. Boy, everybody's a little jumpy tonight. I wonder what the deputies are doing now.

John Harbold and Terry Hocker are two veterans of the deputy force, seasoned by many years in the field. Tonight they paired for a bit of patrol work in Londonderry Township, one of their favorite haunts.

"Well, bud, where do ya want to go tonight?" Terry asks.

"Ah, let's sit early, then move about around 11 or so," John replies.

The two settle into a familiar spot by an old barn. They, too, note a lot of activity on the radio as the spotlights roll by. Time passes quickly and the two get restless.

"I'm gettin' antsy," John says. "Let's roll."

"Yeah, good idea. It's almost 11 anyhow," Terry responds.

The pair wind around the backroads, carefully scanning the countryside. "Hey, over there," John says and points. "Look, there it is again." They see the unmistakable wash of a spotlight casting to and fro on the horizon.

"Yeah, I see it. Let's go," Terry quickly replies.

The light is coming from the back corner of a distant field, well off the public road. The officers shut off their headlights and quietly drive back the field lane. Midway back, the officers tuck themselves behind the remnants of a barn foundation.

"Okay, let's watch these guys for a while," Terry suggests. They've blocked the field's only access. Because it's well past legal spotting time, someone driving a truck on back fields while working a spotlight is a good candidate for an arrest.

The suspects continue to bounce along the field, moving closer to John and Terry. As the truck dips into a gully, the spotlight comes to rest for a moment, its beam focused on a solitary deer. *Crack!* The unmistakable report of a 22 caliber rifle pierces the night air, and the spotlight dims.

"Okay, bud, get ready," Terry cautions. The two officers prepare for action as the vehicle rolls forward.

"Hold it. State officers," John shouts as the vehicle appears from around the foundation's walls. The three occupants are totally surprised, never expecting officers to be blocking their escape.

The officers secure and search the suspects. They further separate them and gather identification. The passenger and his son live just down the road in a nearby apartment. The driver, however, is a long way from home—Tennessee, to be exact.

Not long into the investigation, John and Terry become puzzled. The trio denies firing the shot, claiming that they, too, heard the report and thought it came from somewhere behind them. An unlikely story, but after a careful search of the suspects' vehicle the officers can't locate a firearm. The deputies have no choice but to release the three, pending further investigation.

Within minutes John and Terry find a plump doe floundering about in a brushy draw, blood oozing from a fresh neck wound. The deer, unable to regain its feet, is carefully dispatched to preserve the evidence. The deputies radio for help.

"622-J to 622," I hear on my radio just as I return to my observation point.

"622 bye," I respond.

"Yeah, we need assistance. We have a deer down and we think we know who the shooters are."

"10-4; I'm on my way," I reply.

As I arrive, most of the deputy force is on the scene, and we are briefed on the case. When I hear that one of the suspects is a nonresident I fear he has "beat feet," never to be seen again.

We quickly disperse to locate the suspects. Together with some deputies, I head toward the motel where the nonresident is supposed to be staying. Lower Swatara Township police are on hand as I prepare to impound the man's Jeep Cherokee. I'm in luck; surprisingly, the fellow has returned to his room. I advise him that he's under arrest for his participation in the unlawful taking of a deer through the use of an artificial light, an official way of saying "jacklighting." His Jeep is impounded at the township police station, and we return to the scene of the crime. After some pointed questioning, the suspect confesses. I remain puzzled as to what they did with the gun.

"Why, we threw it out the window when your men stopped us," the defendant told me.

It wasn't until morning that we were able to find the gun in question. High weeds, coupled with darkness and the poacher's modifications, made the task difficult. The firearm, a 22 semi-automatic with a 4x scope, was cut off at the pistol grip and sprayed flat black, definitely a "professional's" deer killing machine.

It was a long night, one that blended into the next day—the archery season opener. The poachers planned to shoot a deer that night, then return to tag it in the morning—claiming it as a legal archery kill. Fortunately, the deputies' presence foiled the scheme.

Join me next month as our law enforcement efforts escalate as the hunting seasons continue.

ONE DAY in late May (though I didn't notice it at the time), thousands of insects crawled out of the ground in our woods. They crept across the forest floor, climbed up trees and shrubs, hooked their big front claws into leaves and bark, and, through a vertical slit in their backs, squirmed out of their nymphal skins.

The newly emerged adults were white and soft. Over the next few hours their bodies darkened and toughened, and their wings unfurled. The shed skins, dry, brownish and translucent, remained on the trees like last autumn's leaves.

The cicadas had come out in our home woods—up and down the township road—all over the valley—on the mountains rising to north and south—across much of Pennsylvania, and as far north and east as Massachusetts, as far south and west as North Carolina and Iowa. Our particular cicadas, I would later learn, are part of Brood XIV. The last year Brood XIV showed up was 1974; they will next appear in 2008. They arrive like clockwork every 17 years, these periodical cicadas of the genus *Magicicada*, magical indeed in their synchrony.

I first noticed them when they began singing. An odd buzzing gradually rose throughout the woods, a low background trilling that expanded and strengthened as new voices joined in. The naturalist Edwin Way Teale once described the sound made by a convocation of cicadas as a “clattering roar” that “soared like a factory running full speed.” It is a gritty din, a sizzling trill, a prolonged wavery shrilling. Some people hate it. I read in the local paper that a woman, planting begonias in her yard, had to quit and go inside because the noise made her ears ring painfully.

In our woods it sounds as if two songs are being sung. There is the steady high-pitched whine or shrilling. The other song, which I first mistook for the calling of birds, sounds something like *ca-a-a-ow*, *ca-a-a-ow*, *ca-a-a-ow*, a descending cry pitched lower than the shrilling.

Thornapples



Chuck Fergus

The male cicada is the one making all the racket. His abdomen is hollow. Inside this chamber, a cluster of powerful muscles are attached to a pair of drumheads. Tightening the muscles puts tension on the drumheads; releasing the muscles makes the drumheads vibrate against membranes lining the abdominal walls. The two different sounds in our woods mean that two different species of cicada have emerged here.

Actual Eardrums

Cicadas—along with crickets, grasshoppers, locusts, and most moths—are the only insects having actual eardrums. (In the cicada, they are located on the abdomen.) When one male cicada starts buzzing, others quickly join in. Females are drawn to the calling, which starts a few hours after dawn and lasts until dusk. Cicadas cluster along woodland edges (where there are



plenty of leaves and stems to perch on) and in bushy, isolated trees. Along our road, they keep the aspen thickets humming.

That first day, when the calling became particularly distracting, I went out in the noon sun and began shaking saplings. Cicadas fell out of the branches by the dozens. Big black bumbling things, they thrashed their wings and went clattering off through the air. One crashed into the side of the truck, *dong*, and fell to the ground.

It righted itself with difficulty. Its big wings folded back over its body like a roof. The wings had a sheen like cellophane, a brown network of veins and, on their leading edges (directed down at the ground when the creature was at rest), brilliant orange struts. The body was black, stout, and about an inch and a half long. The insect's most striking feature were its eyes, red as rubies and set far apart on either side of its broad dark head.



Back inside, I called the entomology department at Penn State University. The extension specialist said I was the 38th person to call about cicadas. After suggesting that I "remain calm" (after last year's gypsy moth onslaught I don't think any insect infestation is capable of panicking me), he reassured me that the cicadas would not eat the leaves off my trees. "At the most they might suck



a little sap," he said. The females, after mating, would lay eggs in the trees' outer twigs, which would cause some branches to die back. "I call cicadas 'nature's pruners,'" the extension specialist said. He referred me to several scientific papers.

I learned that entomologists have identified three species of 17-year cicadas and three of 13-year cicadas. Not surprisingly, the 17-year cicadas are the longest-lived insects in North America. They occur mainly in the North, while the 13-year cicadas live in the South. There are also annual cicadas, called dogday harvestflies, which show up each year during the hottest days of summer.

Early American colonists had never seen periodical cicadas. However, they had read about plagues of locusts in the Bible. They decided these shrilling insect hordes must be locusts, and to this day, many people call cicadas just that, although cicadas are not locusts. The locusts—grasshoppers and crickets—are jumpers; cicadas are not.

Each synchronized population of cicadas is called a brood, and each brood has been assigned a Roman numeral. The larger broods, including XIV, occupy large expanses of the eastern United States. Other broods are smaller, some covering less than 100 square miles. Scientists have identified 14 broods of 17-year and five broods of 13-year cicadas. Broods that are separated by four or more years tend to

overlap (Brood X, which also occurs here in central Pennsylvania and is known as the "great Eastern brood," last emerged in 1987), while broods separated by only one year do not overlap but border each other geographically. The immense numbers of cicadas emerging all at once overwhelm the predators in a given area; a lot of cicadas get eaten, but plenty more survive to reproduce.

It has been about two weeks since the cicadas first emerged, and the females have now begun to lay. A female uses her ovipositor to slit a twig lengthwise, leaving a row of sloppy stitches about two inches long. She lays her 400 to 600 eggs in the slits. Upon hatching, the cicada nymph, according to the famous 19th century French ornithologist J. Henri Fabre, looks "exactly like a tiny, finless fish . . . eminently suited to slipping easily through an awkward passage": the twig tunnel bristling with woody fibers and blocked with egg cases already empty.



Fabre was fascinated by cicadas, especially their single-minded zeal toward singing. He went so far as to set off mortars to test the insects' powers of concentration. "The gunner is delighted to load them for the benefit of the Cicadae and to come and fire them off at my place," Fabre wrote. "We are careful to leave the windows open, to save the panes from breaking. The two thundering engines are set at the foot of the plane-trees in front of my door. No precautions are taken to mask them:

the Cicadae singing in the branches overhead cannot see what is happening below. . . . The mortar is set off, with a noise like a genuine thunder-clap. There is no excitement whatever up above. The number of executants is the same, the rhythm is the same, the volume of sound the same."



Hereabouts I have not been experimenting with mortars or even with a deer rifle. I have been on the lookout for cicada killers, inch-and-a-half-long wasps that provision their nest chambers with the numbed bodies of their prey. (I haven't found a cicada killer yet.) I am debating whether to wrap our apple and cherry trees with cheesecloth, to keep the females from pruning them too severely. (Inertia and a general tendency to roll with nature's punches will probably keep me from putting barriers up.)

A neighbor tells me his dog eats cicadas by the dozen, chomping them down like popcorn. The broad-winged hawks nesting to the west of our house have



been feeding on cicadas, and this morning I saw a bluebird peck one apart and eat it. The fishermen have been catching some really big trout on an imitation cicada made of black-dyed deer

hair. And all across the county the racket goes on and on, arising around half past six in the morning, swelling through the hot hours of noon, subsiding again at dusk.

I like to sit outside, listening, pondering the cicadas. In about a month the fishlike grubs will fall out of their twigs and burrow into the ground. For years they will swim in the earthy darkness, sipping sap from roots, growing. After 17 winters they will emerge, all of them, for their month of summer; of sun and wind and rain and the urgency of mating, to keep the cycle turning. It is a faith the likes of which I can scarcely fathom. In 17 years, I hope to be surprised by it all once again.

Thornapples readers will be interested to know that Chuck Fergus is bringing out a novel. *Shadow Catcher* will be published this month by Soho Press, New York. Set in the American West in 1913, the novel is closely based on the historical Rodman Wanamaker Expedition of Citizenship to the North American Indian; among its themes are early candid photography and the killing of the Sioux chief Sitting Bull. In researching *Shadow Catcher*, Fergus studied thousands of photographs and documents in museums and archives, and visited many of the more than 70 Indian reservations that the Wanamaker expedition called on. The 314-page clothbound book is illustrated with 32 photographs and costs \$19.95. It is available in bookstores and from the Sales Department, Farrar, Straus and Giroux, 19 Union Square West, New York, NY 10003, telephone (800) 631-8571 (normal delivery 2 to 4 weeks, major credit cards accepted).

shadow catcher



c h a r l e s f e r g u s



INTERNATIONAL Bowhunters Organization competition features field shooting, in which 3-D targets such as this deer are used. Targets are set under natural conditions at unknown distances. Todd Herman, Harrisburg, Scott Shultz, Halifax, and Jay Scholes, Aurora, IL, competed at the recent IBO world championship qualifying event.

Hunting for Score

By Keith C. Schuyler

WITH A NEW record of 284,500 licensed bowhunters established for the 1990-91 seasons, yet another archery organization takes on special importance. International Bowhunting Organization of the USA, founded in 1984, is fast moving into Pennsylvania. It is a modern adaptation of the original field archery sport and a big plus for bowhunters. Central to activities is the use of three-dimensional targets simulating birds and mammals.

To get a feel of the response from archers, and to participate as an observer, I attended the IBO world championship qualification shoot at Indiana, PA, in April. I accompanied a group of

five Columbia County archers, and we were met by K.C. Drew, president of the 230-member Indiana County Bow and Gun Club. Founded in 1964, the club has been host to many top archery tournaments.

The 175-acre club property was chosen by IBO because of its 56 outside target stations and its clubhouse accommodations that include an 18-tar-





ED EVELAND, proprietor of World Archery Center in Columbia County, designed a carrier for 3-D targets using an old manure spreader. The targets themselves are fairly durable; replacement vital zones are available. Storage and transportation are the only drawbacks to the use of realistic animal targets.

get indoor range. The club's membership of 230 is about evenly divided between archers and gunners, but a local archery tournament is held each second Sunday of the month before the regular meeting. Shooting is year-round, either outside or on the indoor range.

Going into 1991, David Woodward, Madisonville, KY, was IBO's president. The organization was the dreamchild of the late Rollie Mantzke, Aurora, IL. Unfortunately, he died before his idea could become reality, but it was nursed to fruition by James Bailey, IL, and Myron Rutledge, OH. Bailey is the only founding member remaining. His wife, Kerry, has served as business manager since the group's inception and maintains an office in Batavia, IL. In November the organization plans to move its headquarters to P.O. Box 1349, Madisonville, KY 42431, in order to better consolidate activities.

The preamble of IBO's charter sums up the growing organization's intent: "To unify bowhunters and bowhunter organizations at an international level for purposes designed to promote, en-

courage and foster the art and sport of bowhunting, bowhunting education, act as a liaison for the betterment of bowhunters, function as a clearing house for essential bowhunter information, and adhere to the basic ideal of the International Bowhunting Organization/USA which is the unification of bowhunting."

More than 300 clubs, 16 of which are in Pennsylvania, are already members. This includes Pennsylvania State Archery Association. Member clubs in both Canada and Mexico provide an international flavor, and a membership and dues schedule has been established for countries from other continents.

As with any fast-growing organization, a few red flags flutter insistently. For example, although PSAA supports IBO, members of the state amateur association cannot compete for cash awards, prominent in IBO activities, without sacrificing their amateur standings. Even awards over \$70 in value are prohibited in amateur contests. No IBO tournaments are presently planned for the state organization at this writing.

Any nonmember club can hold an

BRUCE SMITH, left, won fourth place in the Compound Bow Aided class. Arlen Payne took top honors in the Compound Bow Unaided class. IBO competition is good practice for hunters, Schuyler says.

IBO sanctioned shoot by paying \$50, providing proof of adequate insurance and obtaining approval of the IBO Shoot Committee. No sanctioned event may be held concurrently within 150 miles of a similar tourney without agreement by both clubs. Glancing shots and pass-throughs are counted as hits if they are witnessed.

There are many pluses, including an attractive liability insurance program. Major activities center around national championships, with winners determined by scores from three "legs" shot at different locations among states with member clubs, and the world championship. Eligibility for the world championship is determined by qualification shoots like the one I attended at Indiana, PA, wherein the 20 top scorers in each class make the cut. The world event was scheduled for Booneville, IN, in August.

Without a doubt, IBO's popularity stems from the use of three-dimensional animal targets at unknown distances. Realism is the key to bowhunting practice, and the development of such targets has allowed the simulation of many hunting situations.

Of the three-dimensional targets capable of stopping arrows from the most powerful bows, only the McKenzie target has all the dimensions of an actual animal. Two others, Pottinger and PP&S, manufacture lifelike animal targets that have a shooting surface of painted ethafoam and are thick enough to stop arrows from heavy bows. Some incorrectly call the latter targets 2-D. A newcomer in the 3-D animal target line is Timberline Targets. More target makers are sure to enter the market in the future.

The differences among targets, aside from simulation of actual game species, are price and storage. I priced targets at one retail establishment and found that a full-size McKenzie deer, complete with antlers, costs more than \$110 with



tax and a small deer is just over \$100. Other sample prices are \$55 for a turkey and \$349.95 for an elk. Targets come in sections, so parts can be replaced at about \$44 for a bear midsection and \$138 for an elk. With 20 targets needed for half an IBO round, the investment is considerable and, when not in use, targets should be protected from thieves and weather.

Ingenious Solution

An ingenious solution to the problem of moving the targets was developed by Ed Eveland, proprietor of Bowhunter's World in Columbia County. Using an old manure spreader, Eveland welded steel rods onto a spreader; hollow pipes used for supporting the targets in the field are slid onto the rods. In this manner, utilizing a tractor, he can transport the targets to various stations and store them in the same manner in an old barn on his property. He has two such devices for the IBO shoots held on his ranges. The only drawback occurs when target stations are in thick woodlands that have no easy access for the tractor.

Although the basic targets are durable, legs and antlers can be shot off. In one instance, an archer broke an expensive elk antler by hanging his heavy bow from it.

The more simplified 3-D flat-back targets are much lower in price. PP&S advertises a complete set of 28 molded animals for under \$500. Guaranteed for five years, the targets have a replaceable core available for the vital area.

In purchasing targets for IBO competition, it is important to know that bows up to 90 pounds in weight are permitted; blunts and broadheads are not allowed. Arrows must weigh at least 4.5 grains per pound of bow weight.

Sights, stabilizers and V-bars, if used, must not extend more than 12 inches from the forward edge of the bow nearest the point of attachment. Overdraws are legal in all classes, and there is no limit to the number of pins on the sights.

Distances are always unknown, but no target may be more than 60 yards away from the shooting station. Care must be exercised in setting up targets so that obstructions such as limbs or small trees will not be a disadvantage to taller, shorter, or left-handed archers.

At the Indiana shoot, I tagged along for the first 20 targets with just a camera, illegal for participants as are binoculars. I found the course laid out on the side of a wooded hill quite challenging and a bit grueling on that hot day. For the first 10 targets, I was photo backup for Scott Shultz, Halifax, Todd Herman, Harrisburg, and Jay Scholes, Aurora, IL. These three top bows were shooting in the male bowhunter open class, with final scores of 386 out of a possible 400 for Shultz, and 372 each for Herman and Scholes.

For the second 10 targets I traveled

with our local group as Arlen Payne shot his way to first place in the male compound unaided class. Bruce Smith placed fourth in the male compound aided class. Also qualifying for the world tournament were Clyde Albertson, Edward Eveland and Butch Derr.

Top shooter for the entire tournament was Tony Kennedy, Butler, who dropped but four points for a 396 in the male bowhunter open class.

There is something for everyone; there are 13 classes of shooters in male, female, youth and cub divisions. Those accustomed to shooting under rules of PSAA or National Field Archery will have no problem adjusting to those of IBO. Except that being able to judge unknown distances is an important part of such shooting. In my opinion, any deviation from this rule could be to the detriment of the organization as it was when distances were first marked in field shoots many years ago. There are even indoor IBO shoots wherein small animal and bird targets in 3-D are being utilized—at unknown distances.

It is true that, in the more sophisticated classes wherein all shooting aids are permitted, it would be possible to shoot all targets with one sight pin. High powered, flat shooting bows with speeds of more than 300 feet per second, soda straw carbon arrows, overdraws and any type of release make it possible, if not practical.

But if you are just hunting for a way to improve your performance under actual field conditions with realistic animal stimulations as targets, try an IBO tournament. It might help.

Upcoming Attractions at Middle Creek and Pymatuning

Upcoming lectures at Middle Creek begin at 7:30 p.m. and include "The Magic of Deer Antlers" by WCO Dave Koppenhaver, September 4-5; and "Pheasant Propagation for Harvest and Reproduction" by PGC Propagation Chief Carl Riegner, September 18-19. Also featured this month is the annual Middle Creek Wild Fowl Show on September 6-8; admission is free.

Pymatuning is hosting a Wildlife Expo on September 21-22, and included in the exposition is a blackpowder firearms presentation by Mark Weidner—all day, both days. On September 29 at 2 p.m. Garry Leycid will present a trapping seminar.



THE HUNTER'S CHOICES when selecting a shotgun are many: quarry, field conditions, hunting style and personal tastes all play a role. Lewis suggests too many sportsmen pick guns that are choked too tightly, and he urges hunters to pattern their shotguns to see which shot sizes work best for the job at hand.

You and Your Shotgun

By Don Lewis

Photos by Helen Lewis

THE RAIN was heavy, but I was oblivious to the steady downpour. Although soaked to the skin, I kept tramping through heavy patches of crawling briars and thick stands of weeds. A lot was at stake on this opening day of the 1937 small game season.

It was on my first hunt with a new Stevens 20-gauge double and, at 16, I no longer had to have an adult hunter with me; I had served my apprenticeship for two years, listening to hard lectures when I made small errors. Today, I had to prove I could get a rabbit without one of my older brothers looking over my shoulder.

Rabbits were not scarce in my area,

but an all-night rain sent many of them underground. After two hours of hard tramping, I was not only drenched but also disgusted. Occasional nearby shots only added to my frustration. I imagined that every shot came from one of my brothers. I was tempted to try to find them, but my pride wouldn't permit me to admit I had to have their help.



LEWIS SHOT this rabbit in a stand of heavy pines. In this case, he used a Remington 1100 autoloader 20-gauge with a 26-inch barrel and improved cylinder choke. His shot choice was No. 8.



While contemplating my next move, a rabbit scooted out of the weeds and headed for a nearby woods about 20 feet away. I was caught completely off guard and wouldn't have gotten a shot if the rabbit, for some unknown reason, hadn't made a 90° turn and raced along the edge of the woods. My first shot missed, but the left barrel sent the rabbit tumbling.

I was elated, and my imagination started working overtime. I felt I had the world by the horns, and was well on my way to becoming the community's greatest rabbit hunter. I returned home late in the afternoon tired, hungry and with a pocketful of empty 20-gauge hulls.

My aspirations of becoming a great rabbit hunter were somewhat dampened, not so much by the rain, but from having only one piece of game to show for 11 shots. I hung a single rabbit on the back porch alongside eight or 10 taken by my three brothers.

I consoled myself by the fact that they used 16s and 12s. It was common knowledge among local rabbit hunters that a 20-gauge wouldn't shoot as hard

as the larger gauges. One reason I purchased the Stevens 20-gauge double was because a large catalog store had an oversupply of 20-gauge doubles and was selling them for \$19.95 plus a dollar freight. Another reason was fear of recoil.

The rabbit and grouse experts at our local store smiled and winked when my new double was closely examined. The consensus of opinion was the 20 was "good enough for a kid." However, my brother Dan assured me there was no truth that a larger gauge shot harder or faster than a 20-gauge. He said the larger shells held more shot and made denser patterns, but at normal small game shooting distances, I wouldn't be at a disadvantage with the 20.

I wanted to believe what Dan told me, but down in my heart, I wanted a 16 or 12. Probably the only reason I never traded the 20 was because I never had enough money to buy another shotgun. It seemed that when I accumulated a few dollars toward the purchase of a 16 or 12 double, I always needed shoes or clothes. Still I must admit that the longer I used the Stevens 20, the more I realized that Dan was right all along.

I think it's fair to say that the shotgun (smoothbore) is the oldest shoulder-fired gun. At first, the muzzleloading smoothbore was used basically as a rifle because it shot a single projectile. I won't go into the transition from rifle to shotgun, but some of the larger bores of the past are intriguing. Imagine shooting a 4-bore that used a round ball weighing a quarter of a pound. Even more nerve-shattering was the 2-bore that accommodated a half-pound lead ball. The muzzleloading shotgun fell by the wayside in the early 1870s when the self-contained shotshell appeared.

Extra large bores such as the 2- and 4-bore outfits probably saw limited use but, for many years, the 10-gauge was

LEWIS'S FIRST shotgun was a J. Stevens 20-gauge double, which he bought in 1936 for less than \$20. The old side-by-side contrasts with his sleek SKB over-under, which is considerably more expensive.

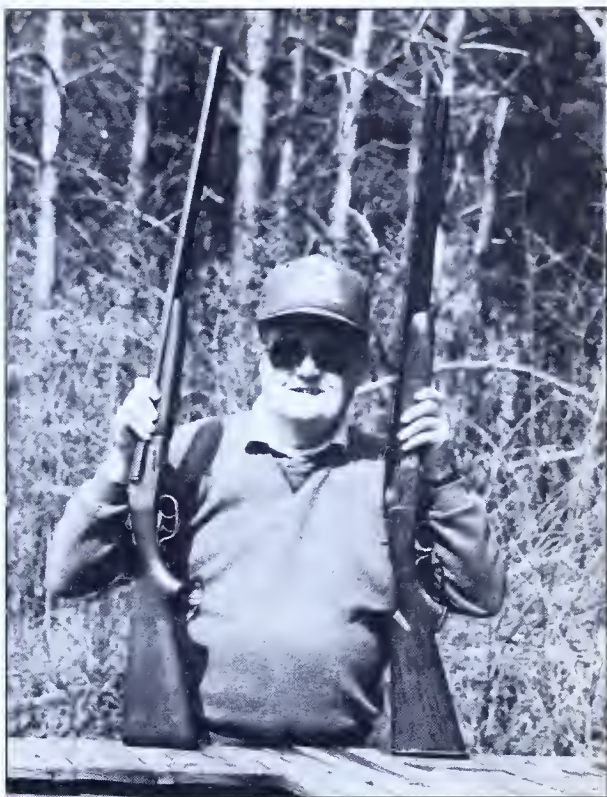
popular with waterfowl hunters. During the gaslight era, there were many gauges, but the number has dwindled to five gauges (10, 12, 16, 20 and 28) and one bore measurement—410.

When the shotgun was being developed, gauge was determined by the number of bore-size lead balls required to make one pound. A bore that accepts 16-to-the-pound ball is a 16-gauge, 20 bore-size balls is a 20-gauge and so on. The exception is the .410 bore which has a bore measurement of .410 inch. Actually, the .410 bore requires approximately 67 .410 diameter lead balls to make a pound, which equates it roughly to a 67-gauge. My math might not be absolutely accurate on the .410 bore.

Today there are five basic types of shotguns: single-shot, bolt-action, double barrel (either side by side or over-under) pump-action and autoloader. Around the turn of the century, Winchester manufactured a few lever-action shotguns, but the mechanism never caught on in scatterguns as it did in rifles. It's worth noting that certain handguns now utilize shotgun-type loads, but these are not true shotguns.

The basic shotgun is the single-shot, and normally this outfit is the least expensive unless you are a dedicated trap shooter. The price of a good single-shot trap shotgun can run into thousands of dollars. The single-shot outfit found in the hunting woods and fields is a far cry from the custom trap job. It's a good starting firearm for new hunters. It's a safe gun because an excited, inexperienced young hunter can't inadvertently fire a second shot, and he also learns the value of making the first shot count. I still think there is no better shotgun for a new hunter than a 20-gauge single-shot.

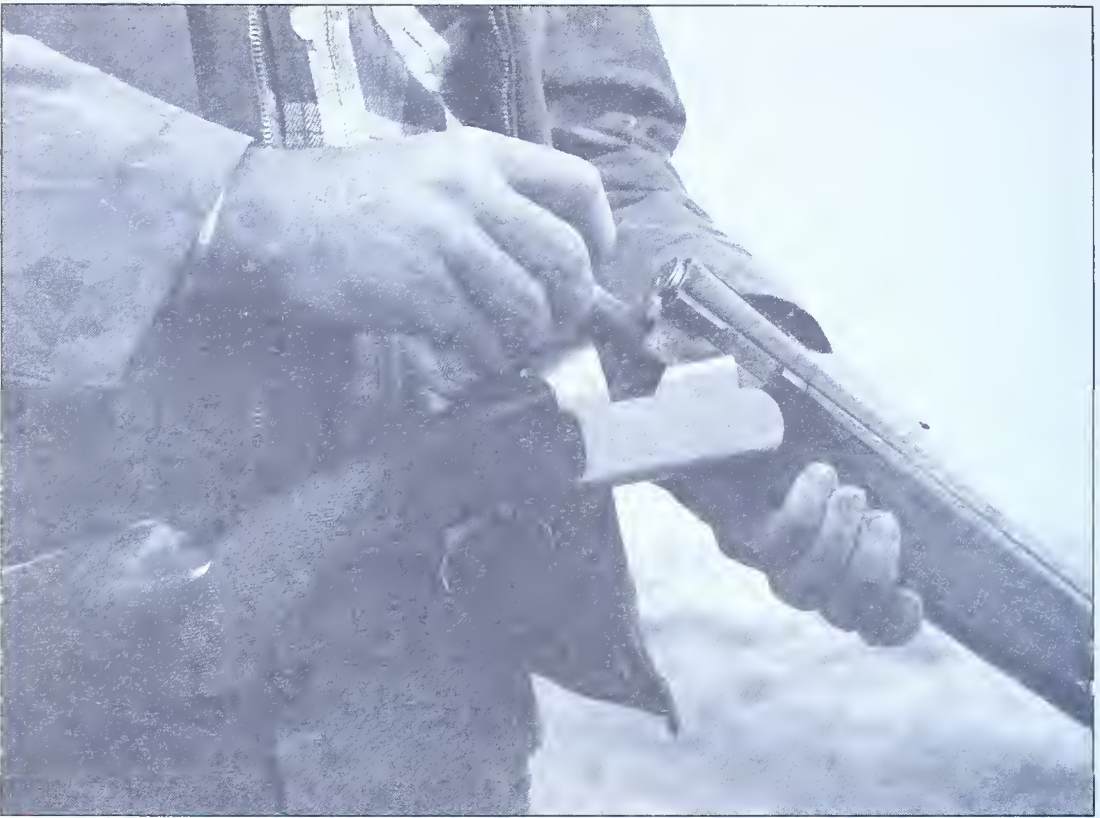
In all honesty, I can't see any sound reason for a bolt-action shotgun, unless just having two more shells in a maga-



zine is important. I don't have a lot of field experience with bolt-action shotguns, but I never reached a degree of proficiency that allowed me many follow-up shots on fast-moving game. In other words, I didn't have much more than a single-shot system.

The two-barrel outfit is the epitome of a hunting shotgun, but dedicated pump fans will put up a strong argument for the slide action. The double, either side by side or over-under, qualifies as one of the safest shotguns for hunting. As with the single-shot, the double exposes the chambers when open, enabling the shooter to see if the gun is loaded and to check for barrel obstructions. Also, when it is open it cannot fire, which is a real safety factor.

Most pump-action shotguns carry extra shells in a tube below the barrel, the loading of which compresses a powerful spring. A latch or lock catches the rim of the last shell inserted, holding it and all of those previously loaded. When the slide is pulled back, the lock is depressed and the rearmost shell in the magazine is pushed by the spring into a carrier that has dropped down to



THE DOUBLE-BARRELED shotgun, like its single-barrel counterpart, is undoubtedly the safest action type. When the action is open the chambers are visible, enabling the shooter to see if the gun is loaded and to check for barrel obstructions. Many consider the double, whether side-by-side or over-under, the epitome of a hunting shotgun.

receive the new round. When the slide is moved forward, the carrier rises and places the shell in front of the chamber; the bolt pushes it into the chamber. The carrier returns to its pickup position.

From a pure speed aspect, some veteran hunters can operate a slide-action shotgun with unbelievable dexterity. In the days before the three-shell limit, it was claimed that an old rabbit hunter in my neighborhood could work his pump fast enough to keep three empties in the air. That wasn't quite true, but I saw firsthand his ability to work a pump.

He was pretty well up in years and the three-shell limit was in effect when I "dogged" for him in a briar patch behind our home. I bounced a rabbit out of a brushpile, and he cut loose. It's been more than 50 years since he rattled all three shells out of the battered pump, and I'm still not certain whether it was the second or third shot that con-

nected—maybe both. In all fairness, he was about as close to an autoloader as you can get.

The semi-automatic is a modified version of the pump. It can be either recoil or gas-operated. All the shooter has to do is pull the trigger for each shot. In short, the autoloader eliminates the manual operations required by a slide action. With the auto, a single pull of the trigger sets the entire working mechanism into action.

I have not gone into detail on any of the shotgun actions. As the old saying goes, "To each his own." I'm a two-barrel fancier, but a close hunting friend sticks with a pump. Another hunting pal owns a Remington 1100 autoloader. Years back, a neighbor filled his limit time and again with a single shot Excel 16-gauge.

A shotgun should satisfy your psychological side more than anything else. It's carried more than a rifle, and a shotgunner normally is faced with diffi-

cult shots because the targets are moving. I'm not taking anything away from the rifleman, but shotgun hunting is quick, close range shooting. That's why the fit of a shotgun is more important than its gauge.

I've often written that the shotgun term "fit" is ambiguous and difficult to explain. Perhaps "fit" simply means that the stock length, stock drop and comb height meets to the nth degree the physical dimensions of a hunter's body. I might toss in here that weight is more important than many small game hunters realize. An extra pound of weight will take a heavy toll on a hunter's stamina during the course of a day's hunt.

Other factors that must be considered are barrel length and choke constriction. Unfortunately, too many hunters use long barrels and tight chokes. They have purposely set themselves up for long range shooting. It's also unfortunate that most of their shooting will be done at short ranges. Without realizing it, they are handicapping themselves.

For general small game shooting, nothing beats a 26-inch barrel. On single barrel shotguns, improved cylinder choking is ideal, but I know that

most hunters will use modified. A closer look at ballistics may show the error of their thinking. Normal shooting distances at rabbits and grouse are seldom more than 25 yards.

At that distance, a modified choke produces a pattern about 30 inches in diameter. An improved cylinder adds roughly 18 inches more, or about four feet. This is even more important on shots that are closer. At 20 yards, modified runs about two feet and improved cylinder opens up to 40 inches.

The argument that large diameter patterns are too thin might be true with large shot. Using small shot such as 7½s or 8s defeats this argument in a hurry. For many years, I have used a load of 1½ ounces of 8s (450+ pellets) in the improved cylinder barrel and 1¼ ounces of 7½s (430+ pellets) in the modified barrel of a 20-gauge over-under. These two loadings have worked perfectly in this short 26-inch barrel outfit. I can't ask for anything better.

When starting out, don't invest heavily in a shotgun unless you know precisely what you need. Use different actions and gauges before making this important decision. You and your shotgun are a team, and compatibility is the key word.

Books in Brief...

(Order from publisher, not from Game Commission)

Big Bore Rifles and Cartridges, Wolfe Publishing Company, 6471 Airpark Drive, Prescott, AZ 86301, 358 pp., paperbound, \$26 plus \$3 s&h. Recent years have seen a resurgent interest in big bore rifles, the really big ones. Leading firearms manufacturers have jumped on the bandwagon, and magazine articles on how to download, say, a 458 for use on thin-skinned North American game are no longer out of the ordinary. Here, though, writers John Wootters, Bob Hagel, Ken Waters, Mike Venturino, Maj. George Nonte and others present a good deal of loading and technical information on factory and wildcat chamberings from the 8mms to the 600 Nitro Magnum. Folks planning a future trip to Africa or Alaska, or those just fascinated by the lore of big guns, would do well to give this comprehensive work a look.

Real Ponies Don't Go Oink! by Patrick F. McManus, Henry Holt and Company, 115 W. 18th St., New York, NY 10011, 198 pp., hardbound, \$16.95. For McManus, *Outdoor Life* humor columnist, it's his ninth book, a collection following on the heels of *The Night the Bear Ate Goombaw*. McManus mixes in a few stories that have little to do with the outdoors—like the perils of pouring your own concrete—and they're just as appealing to sportsmen as are his hilarious tales of woe from the field.

In the wind

j. scott rupp



The Chevron Conservation Awards program, which each year honors individuals for environmental achievements, selected its 25 top conservationists for 1991. From that selection, the organization theorizes the profile of U.S. conservationists may be changing. Today's environmentalists are more likely to be involved with water conservation in the face of increasing attention on wetlands losses, and they are also more likely to be women. Chevron awards went to eight women, and to 11 individuals involved in major water resource projects. Honorees receive \$1,000 and a bronze plaque.

Bart Jerner of Homewood, IL, won the U.S. Forest Service's national poster art contest. His painting, "Autumn's Glow," will be featured on a poster commemorating the 100th anniversary of the National Forests system. The Boone & Crockett Club provided a \$10,000 cash award the 65-year-old artist received for winning the juried contest.

Wildlife biologists had to intercede in Buzzard's Bay, MA, when a peregrine falcon began eating a number of roseate terns. Both species are endangered. Nearly half of the 3,300 pairs of roseate terns in the northeastern U.S. nest on the bay's Bird Island, and soon after their arrival in nesting season the falcon appeared. It apparently paused in its migration because of the abundance of food presented by the endangered terns. The peregrine was trapped and relocated, but not before it ate an estimated 21 roseate terns and discouraged many others from nesting.

A deer study reported in *Audubon* magazine indicates that losses among translocated animals are high. Biologists Jon M. Jones and James H. Witham conducted a 6-year study of 50 whitetails captured in heavily populated Cook County, IL, and relocated on Joliet Army Training Center. Generally, half the animals died from stress and other factors. *Audubon* suggested, "If this costly technique (relocation) is chosen as an alternative to killing deer, then the results are less than satisfactory. The deer simply die in someone else's backyard."

Connecticut has outlawed the sale of small Freon containers to the general public; air conditioner recharge kits can be sold only to those who hold licenses for auto or appliance repair. Chlorofluorocarbons (CFCs) found in the recharge kits contribute to ozone depletion if they are released into the atmosphere.

Panoramic views in our national parks are fast vanishing due to atmospheric pollution, according to *USA Today*. Power plant emissions, city smog and vehicle exhausts cast a haze over vistas from Alaska to Maine, and the problem is particularly bad during the summer months. "There are now a number of parks in which air quality is below minimum health standards that we set for industrial locations," said a spokesman for the National Parks and Conservation Association.

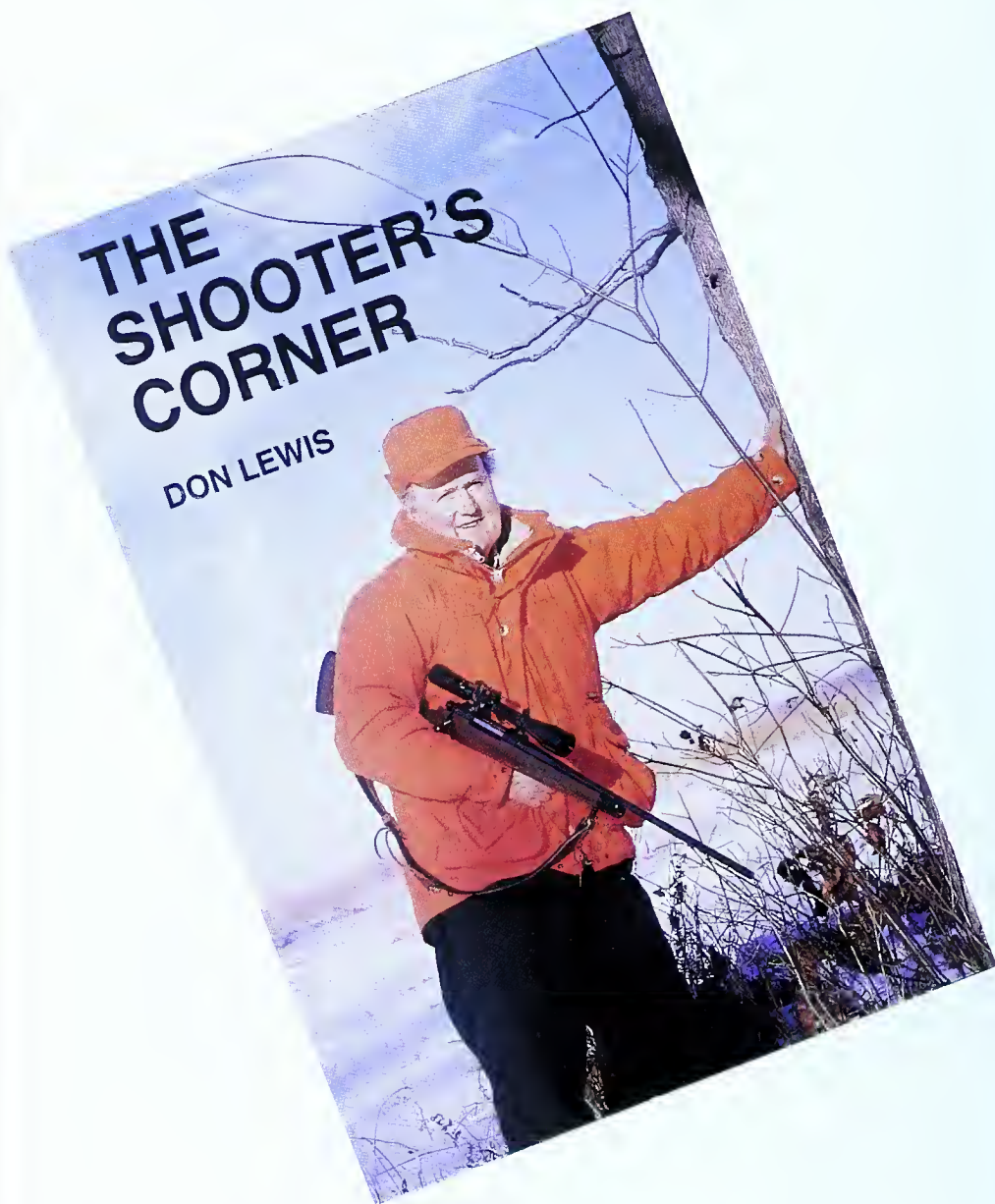
An Oregon man was fined nearly \$2,600 and ordered to serve 76 hours of community service for killing three elk out of season last autumn. The district court justice suspended the man's four-month jail term, placing him on two years' probation; the judge also ordered him to write a public apology in a local newspaper.

Answers:

- Beaver—F
- Black Bear—C
- Deer—B
- Elk—E
- Hawks & Owls—A
- Hungarian Partridges—G
- Raccoon—I
- Ring-Necked Pheasant—J
- Ruffed Grouse—H
- Weasel—K
- Wild Turkey—D



Working Together for Wildlife patches have proven to be extremely popular over the years. The first two in the collectible series, the osprey and river otter, issued in 1982 and '83, respectively, sold out quickly, and supplies are limited for the remaining patches. Funds derived from the sale of WTFW patches—and fine art prints—are used to support nongame wildlife research and management programs. Patches cost \$3 each, delivered. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.



THE SHOOTER'S CORNER, by Don Lewis, is a 449-page hardcover book that covers nearly every facet of the shooting sports from a hunter's point of view. Beginning with the history of firearms, Don covers actions, stocks, and barrels; scopes and metallic sights; rimfire, big game and varmint cartridges; shotguns, gauges and fit; and a whole lot more. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. Price is \$15 delivered.

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OCTOBER 1991

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FEATURES

Young Bird, Young Man 3
By Dale Bowman

Up From The Bottom 6
By Thomas L. Serfass

Nine Rabbits by Noon 12
By Don Feigert

Hunters Sharing the Harvest 17
By Kurt E. Enck

Patch, Ball and Bushytails 19
By Jim Ciprich

Banker's Hours Bucks 22
By Derek Roth

Halve the Drudgery of the Drag 26
By George L. Harting

The Hard Sell 29
By Jack Straw

Pennsylvania Wildlife Habitat Unlimited .. 32
By Colleen Shannon

NEWS

Field Notes 34

Conservation News 39

Books in Brief 63

In the Wind 64
By J. Scott Rupp

COLUMNS

Fun Games 15
By Connie Mertz

Tangible Reminders (Another View) 41
By Linda Steiner

Outdoor Wildlife Learning 43
By Bill Einsig

WCO Diary 45
By Keith A. Snyder

Thornapples 50
By Chuck Fergus

The Edges of Day (Archery) 55
By Keith C. Schuyler

A Look At Casting Bullets (Guns) 59
By Don Lewis

COVER PAINTING BY DENNIS BURKHART
(Cover Story on Page 31)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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There Are No Shortcuts

AS I WRITE this, the upcoming waterfowl seasons have yet to be finalized, but it's safe to assume that the shorter seasons and reduced bag limits waterfowlers have endured since 1988 will continue this year. And that's hardly surprising; the need for conservative waterfowl hunting regulations is as great as ever. Before elaborating further here, the 1991 waterfowl seasons and bag limits will almost certainly have been announced by the time you read this. Check your local newspapers or contact a post office or hunting license issuing agent for this year's duck and goose seasons.

Overall, duck populations are up slightly from a year ago, yet the 1991 figures are, nonetheless, the sixth lowest on record. Considering that 1989 and 1990 counts were, respectively, the lowest and second lowest on record, there's little reason for optimism.

Particularly alarming is that in just the past year the number of pintails has declined 20 percent. According to the National Wildlife Federation, only 1.8 million pintails exist today, a far cry from the nearly 6 million found across the continent just a couple decades ago. Another ominous sign concerns mallards. Mallard numbers dropped to an all-time low in 1990, and they showed no change this year.

Declining waterfowl numbers and the causes are hardly new. In general, duck numbers are less than half what they were only 20 years ago. Persistent drought in the prairie pothole country of the Midwest and Canada has been suppressing waterfowl nesting success for several years, but the primary reason for declining duck numbers is unquestionably habitat loss.

It's been estimated that less than half the wetlands in the lower 48 states remain from what greeted European settlers. Since Colonial times, about 65 percent (some 10 million acres) of the seasonal wetlands in the prairie pothole region, where half of all North American ducks nest, have been destroyed.

In more recent times, habitat destruction has become increasingly significant in waterfowl wintering areas. The problem is particularly evident in the forested wetlands in the Mississippi River floodplain, where more than 3 million acres have been destroyed since the 1970s. Other important waterfowl wintering areas are coastal wetlands along the Gulf of Mexico; these areas have been reduced by 70,000 acres.

With less habitat for nesting, migrating and wintering, ducks are being concentrated in the habitat that remains, where they're overly susceptible to disease, starvation, predation and other mortality factors.

The persistent drought will eventually abate. In the meantime, waterfowlers will continue to see conservative seasons and bag limits. And just as sportsmen have done in the past, when restrictions were enacted to restore wood ducks, Canada geese and other migratory game birds, they will certainly support these efforts.

There's even more we can do. The North American Wildlife Foundation, for example, is encouraging waterfowlers to refrain from shooting hens—of any species—and to take less than the allowable limits when afield.

Most importantly, however, and something every conservationist should do, is support conservation organizations such as Ducks Unlimited that are working to protect wetlands, and to let our representatives know how we feel about wetlands protection. Rules and regulations protecting wetlands are under attack at every level, from local ordinances right up to federal land use policies. Only by effectively stopping the needless destruction of wetlands can the future of waterfowl be ensured. It's the only real solution. —*Bob Mitchell*



I DIDN'T KNOW about the streambank. I sank to my armpits in the deep snow, remembering to lift my gun above my head. That's when the grouse opted to fly out from the top of the pine right over my head. It flew straight away—the easiest shot a hunter could hope for. I missed.

Young Bird, Young Man

By Dale Bowman

MY FIRST SHOT at a grouse came at the age of 13. It was an easy one, the bird was flying straight up a wide open stretch of stream. Buried in a snow drift up to my armpits, I never came close. I would hardly have guessed, either, that it would be 20 years before I actually dropped my first grouse.

On that distant New Year's weekend, a snowstorm clipped Lancaster County with several inches of snow. The weather service said the areas north of Harrisburg had received more than a foot of the stuff.

I was as devastated as only a young hunter can be. We had planned on driving up to my uncle Mel's cabin in Perry County to run rabbits behind Mel's

beagles. But Dad was not about to take my younger brother Leon and me up into snow-snarled mountain roads.

Perhaps a hunter's restlessness stirred in Dad, too, or just a father's wisdom. When the winds remained calm after the snow, he decided we should pack our guns and sleeping bags and pile them into the back of our old Plymouth. Leon and I needed no encouragement.

Driving over to Perry County, we noticed there was more and more snow on the ground. By the time we reached the cabin, it was at midway between my knee and waist. Hunting rabbits seemed dubious at best. Our relatives were surprised to see us pull in late in the evening. We unloaded and dis-

cussed hunting possibilities for the next day. Uncle Mel said the obvious: there was no way we could take the beagles out in 18 inches of fresh snow. Instead, we decided to try to stir up some grouse.

In the morning, Leon and my younger cousin Mel stayed at the cabin while I rather proudly got to go along with the men: Dad, Uncle Mel and my older cousin Bob. They all wondered how I would hold up, walking through snow that hid the lower half of my body, but I managed to keep pace.

Sudden Discovery

In the early morning, all we chased up was an out-of-season quail. At noon, we decided to push through some pines along a creek. I didn't know about the creek, but quickly discovered it by walking into a drift hiding the stream-bank. It was an odd feeling, slowly sinking through the white fluff like a baby drifting into sleep. I sank to my armpits but remembered to lift my gun above my head.

That's when the grouse opted to fly out from the top of the pine right over my head. Maybe it is only a hunter's paranoia, but the grouse seemed to sense my hindered condition, and rather than doing the usual zig-zagging flight through other trees, it flew straight up the stream. It was the easiest shot a hunter could hope for.

I missed.

The men did their best to console me with other tales of the wily ways and flights of a grouse. It helped some, but I knew I had blown a good opportunity.

Life has as many twists and turns as the flight of a flushed grouse. The next 20 years saw me off to college and then to jobs in several other states. I always managed to make it back to Penn's Woods for a few days of fishing and hiking with Leon and Dad in summer and for deer season come fall. Rarely did I have the chance to hunt grouse for more than a day in any year—hardly the best way to bag a grouse.

I missed my fair share, though, shooting one way when they went the other.

At other times easy shots went unshot as the surprise of that famous whirling takeoff turned me into a simple spectator. While my shooting has not improved much over the years, my ability to find grouse has. During my summer hikes, I marked the areas where I flushed broods or had a hen do a broken wing trick.

My father's cabin is on the border of Centre and Union counties. During the summer of 1990 I spent two weeks hiking and fishing there. In the area along Cherry Run, I flushed several coveys and many singles, so I knew birds were around. In the fall, luck—or at least a hunter would call it luck—was with me: Between jobs, I had the month of November off. It took about two seconds to decide to spend it hunting turkey, bear, deer and, of course, grouse.

The first morning back I slept late, recovering from a long late night drive to the cabin from Chicago. That first afternoon I spent hunting turkeys, but I didn't hear or see any, so I decided to go for grouse the next day.

In many activities, sportsmen can be divided into two camps: deer hunters who stand and deer hunters who stillhunt, for example, or turkey hunters and grouse hunters, fly fishermen and bait fishermen. I readily admit to a restlessness that puts squarely in the camp of stillhunters, grouse hunters and bait fishermen. It is not necessarily something to be proud of, just the way I am.

Therefore, grouse hunting the next day I jumped three and missed two—including the same one twice. I was disgusted with myself. The birds were there, but my shooting and reflexes were rusty from too much time in the city. Friday evening Dad and Leon joined me. The next morning we flushed 11 different birds, but managed shots—snap shots—at only two. The grouse must have been laughing at the Bowman clan.

Monday I was on my own again, hunting grouse back at my favorite area. Over the years I have gone small game hunting by myself a lot and have developed a technique for flushing game. I

I WADED into a chest-high patch of laurel and shot just before the bird flew around a small pine. To my utter surprise, it dropped. Although I ran immediately to the spot where it fell, the bird was hard to find.

call it the “staggered-step weave.” Other hunters probably have various other names for the same practice. The “weave” is simply wandering from one good looking spot—brushpiles, thickets, evergreens—to another. The “staggered-step,” is simply stopping for a few moments after every few steps. Often, it seems, most game will flush either when you stop or on your starting step. In many instances the game flushes so close that you just know the animal would have sat still and let you pass if you had not stopped.

The first grouse flushed that Monday morning before I had walked more than a hundred yards from my truck. I was working a patch of laurel along a stream bed when it flew into some pines. I marked the spot as a place to hit on my way back. I waded into a chest-high patch of laurel and flushed my second bird. I swung my gun across the top of the laurel and shot just before the bird flew around a small pine. To my utter surprise, it dropped.

I jumped over one patch of laurel and could hear its wings beating in what I hoped were death throes. I jumped another patch and could still hear the beating wings. Another jump and the woods were quiet. I ran to where I had last heard the beating wings. Nothing. My first grouse in 22 years of hunting had vanished.

Then, a long forgotten tip from my boyhood reading came to mind. I hung a fluorescent orange hat on the pine tree and began making ever widening circles around it. Fifteen minutes later I was still circling and looking, still certain the bird was down. It had sounded like a dying bird, not a running bird. I went back to my hat and began making long straight walks away. On my second pass, I found the bird—a juvenile—beside a root.

I was as pleased as a young boy. On the way back to my truck, I heard an-



other truck approaching and slowed my return to match his passing. It was a bit of a childish ploy, but I took my good old time pulling the grouse from my pocket and was fluffing it as he passed.

The hunter stopped and eyed the grouse casually, too casually for my tastes. This was my first grouse and I had to tell someone. “You’ll eat well tonight,” he said, then he asked if I had seen any turkeys. Turkeys, smurkeys, I had a grouse. I took a bypass into Woodward on the way back to the cabin and called Dad from the pay phone. He celebrated with me and gave me the proper credit I felt, but then, he is my dad.

Fit for a King

Back at camp, I coated the grouse with bacon grease, salt and pepper. A simple recipe, but the thick white breast tasted kingly. Sometimes the simple pleasures of hunting are enough to make you feel like royalty.

I saved the tail and wings to take a bit of the woods back to the city. My spirits were so good that I even forgave the cabin mouse that ran off with the tail during the night.

The grouse was the only game I would bag during the trip, but it was more than enough.



RIVER OTTERS once inhabited all our major water systems, but intensive, unregulated trapping and development and expansion of tanning, coal, oil, timber and gas industries caused a severe drop in otter numbers. In 1982, the Game Commission, in cooperation with East Stroudsburg University researchers, began reintroducing the animal in the north-central region. The program has expanded, with the help of Penn State wildlife experts, and today otters are on the comeback trail.

River Otters in Pennsylvania . . .

Up From The Bottom

By Thomas L. Serfass

WHEN EUROPEAN immigrants first arrived here, river otters inhabited all our major water systems.

Extensive and highly productive wetlands along the lower Delaware River probably supported the largest otter population in what would soon become Pennsylvania. In northeastern and northwestern Pennsylvania, complex networks of lakes, ponds, marshes and connecting streams formed by glacial activity 10,000 years ago also provided excellent otter habitat. Less diverse drainage systems in central and southwestern Pennsylvania probably supported smaller, but nonetheless healthy river otter populations.

The state's population of this playful and intelligent member of the weasel

family probably began declining during the 1700s because of trapping. As an adaption to their semi-aquatic existence, otters possess a dense, luxurious fur to insulate them against heat loss while traveling or hunting in water. As a result, the otter's fur was highly prized and valuable.

Intensive trapping for otters continued through the 1800s. Because otter populations are naturally low and limited to aquatic habitats, the animals are particularly vulnerable to unrestricted harvests. It was probably during the 1800s that trapping had its first significant impacts on the smaller otter populations in the less diverse aquatic habitats of central and southern Pennsylvania. Historical records suggest ot-

OTTERS trapped in New York were held in captivity at Penn State, and their health was carefully monitored. The animals were being prepared for transportation to a Tionesta Creek release site.

ter declines in northwestern and northeastern Pennsylvania were occurring at that time, too.

Unregulated trapping was not the only threat otters in Pennsylvania were facing. Development and expansion of tanning, coal, oil, gas, timber and other industries during the 1800s and early 1900s also contributed to the decline of the commonwealth's otter population.

Unfortunately, there was little concern for environmental degradation caused by those industries. Effluents from tanneries, acid drainage from coal mines, and oil spills, polluted many waterways. Early timber operations frequently clearcut entire drainages, causing stream siltation and major alterations of fragile streamside habitats.

As a result of those habitat disturbances, otters, which require unpolluted water systems as sources of prey, and undisturbed forested shorelines for den sites, were excluded from much of their range.

Pennsylvania's otter population continued to decline into the 20th century, and by the 1950s the otter's range in Pennsylvania was limited to the Pocono Mountains region. Apparently, extensive landholdings of various resorts and hunting and fishing clubs scattered throughout the northeast provided remaining otters with enough sanctuary to save them from trapping and industrial development.

On the Way Back

In 1952, to prevent further deterioration of the state's otter population, the Pennsylvania Game Commission stopped all otter trapping. This decision was critical in preventing further decline and possible disappearance of otters from the commonwealth. Since enactment of trapping restrictions, otters have slowly rebounded, and healthy populations now exist in many areas of the northeast.

Although water pollution remains a



problem for reestablishment of otters in many areas, overall improvements in water quality and furbearer management techniques suggested renewed potential for otters to regain portions of their historic range in Pennsylvania. Unfortunately, metropolitan areas and development surrounding northeastern Pennsylvania prevented significant natural expansion of the state's otter population.

To overcome habitat barriers surrounding the otter range in northeastern Pennsylvania, in 1982 the Penn-

Tom Serfass has conducted field research for the Pennsylvania River Otter Reintroduction Project since 1982. Tom and Dr. Larry Rymon coordinated initial phases of the otter project through the Department of Biology at East Stroudsburg University. In 1986 responsibilities for the otter project transferred to the Wildlife and Fisheries Science program in the School of Forest Resources at Penn State University, where Tom has coordinated the reintroduction effort along with Dr. Robert Brooks. Funding for the Pennsylvania River Otter Reintroduction project is provided by the Wild Resource Conservation Fund (state income tax check-off), the Game Commission's Working Together for Wildlife Program, and the Allegheny National Forest.



sylvania Game Commission, in cooperation with wildlife researchers at East Stroudsburg University, initiated a program to reintroduce otters to high quality streams in northcentral Pennsylvania. From 1982 through 1986, 39 otters live-trapped from Pennsylvania, Louisiana, New York and Michigan were released into Kettle, Pine and Loyalsock creeks.

Tracking Studies

To evaluate the initial success of reintroductions, several otters at each reintroduction site were equipped with small radio transmitters, surgically implanted in their abdomens. Following their releases, these instrumented otters were radio-tracked for up to a year by researchers from East Stroudsburg University. Results of these radio-tracking studies demonstrated a high survival rate among the otters. Researchers also were encouraged by the general tendency of otters to remain in release areas and establish territories.

Although radio-tracking suggested that habitats at reintroduction sites were suitable to sustain the released otters, evidence that the otters would re-

produce and establish populations was still necessary to justify expanding the reintroduction program to other sites in Pennsylvania.

In 1986, researchers in the Wildlife and Fisheries Science Program in the School of Forest Resources at Penn State University acquired responsibilities for evaluating long-term success of reintroduced otter populations. They also were responsible for planning and implementing expansion of otter restoration efforts. Since assuming leadership of the otter project, Penn State researchers have conducted annual surveys along Kettle and Pine Creeks for otter scats, tracks, and slides to determine if the animals remained at reintroduction sites. During the fall 1990 surveys, researchers frequently encountered otter scats along Kettle and Pine creeks.

In fact, based on evaluation of survey data, researchers are excited to report that otter populations have expanded beyond areas occupied during the radio-tracking phase, and that otters now occur throughout most of the Kettle and Pine creek drainages. Surveys for otter sign have not been conducted

LAST APRIL, three otters were released on Tionesta Creek in the Allegheny National Forest in Forest County. The remote area is particularly good otter habitat. Wildlife technicians used radio telemetry to determine whether animals that had been previously introduced were in the vicinity, in order to avoid possible territorial disputes between the newcomers and established otter populations.

along Loyalsock Creek; however, numerous reports of otter sightings by Bureau of Forestry and Game Commission personnel indicate otters persist along this stream, too.

Although there is no open season on them in Pennsylvania, otters are sometimes accidentally trapped during beaver, raccoon, mink and muskrat seasons. Since initiation of the otter project, four otters are known to have been trapped and then subsequently released along Kettle Creek, and wildlife conservation officers have collected the carcasses of nine otters killed in traps along Pine Creek.

After review of trapping incidents and examination of carcasses, Penn State researchers concluded that two of the trapped and released otters at Kettle Creek and six of the otters killed at Pine Creek were born at the respective reintroduction sites. The other otters were among those reintroduced, which we could tell by the presence of ear-tags and radio transmitters. Further examination of these otters indicated that all had gained weight since their releases and were in excellent physical condition at the times of their deaths.

Based on this and other evidence demonstrating long-term survival and reproduction by reintroduced river otters, it appears certain that habitats in northcentral Pennsylvania can sustain otter populations. Minimizing losses due to accidental capture by trappers may present the biggest challenge to maintaining small otter populations in low diversity stream systems such as those encountered in northcentral Pennsylvania.

Loss of three females along Pine Creek during the 1989-90 trapping season has reinforced this concern. At



present, though, trapping does not appear to have seriously limited reintroduced otter populations. In addition, strong support for the otter reintroduction project expressed by local trappers and the Pennsylvania Trappers Association indicates that the problem of incidental captures can be resolved in a manner equitable to both trappers and the otter recovery plans.

Effort Expanded

Evidence that reintroduced otters have established self-sustaining populations has prompted the Game Commission to expand otter recovery efforts to northwestern Pennsylvania. The first step of this process was initiated June 1990 when four otters purchased from New York were released into Tionesta Creek, in the southern part of the Allegheny National Forest.

Prior to release, the otters were held in captivity for two weeks at Penn State University. While in captivity, their health was carefully monitored by staff veterinarians at the university. After the otters adjusted to animal rooms and were eating regularly, they were immobilized and equipped with transmitters for radio-tracking.

Results from nine months of radio-tracking demonstrated that otters survived the harsh winter conditions in northwestern Pennsylvania and had remained in the Tionesta Creek drainage. Based on this evidence and experience



AFTER THE drive from State College to the Kellettville area, the otters (enclosed in a transportation/release cage fashioned from PVC pipe) were taken from the truck and allowed to settle before the introduction team picked its way down the steep bank to Tionesta Creek. Once creek-side, dividers were removed from the tubes so the otters could see the water, giving them an opportunity to acclimate themselves. A plunger, inserted at the back of the tube just before release, moved the animals forward to the cage at the front. When they were let go, the otters dove in—leaving barely a ripple—and were gone.



FUNDING for the otter reintroduction program is in part provided by the Pennsylvania Wild Resource Conservation Fund, a non-profit organization that derives its funding solely from state income tax check-off contributions and private donations.

from previous reintroduction sites, Penn State researchers concluded that Tionesta Creek will support an otter population and that reintroductions should proceed without further radio-tracking.

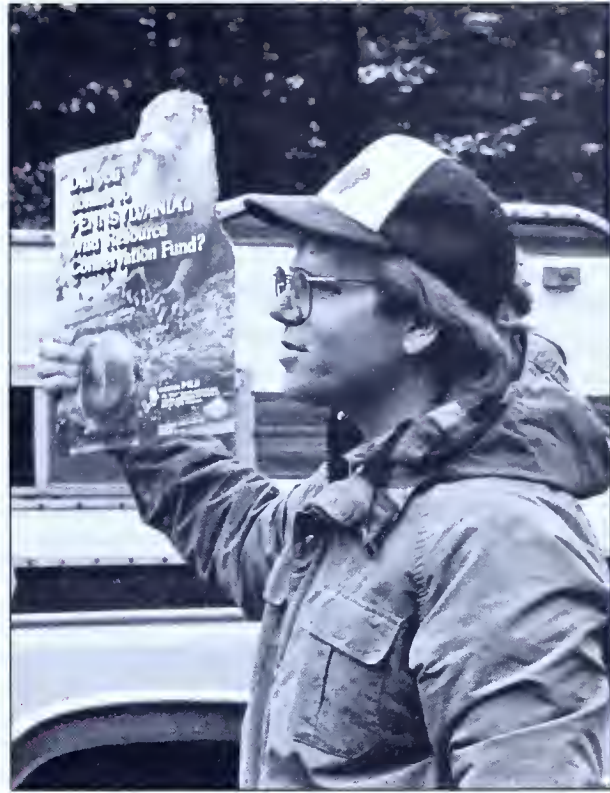
The Future

On April 2, 1991, the final phase of otter reintroductions in northwestern Pennsylvania was initiated with the release of three otters (also from New York) into Tionesta Creek. River otter recovery efforts are expected to conclude in northwestern Pennsylvania in 1991. During that time, Tionesta Creek is scheduled to be stocked with an additional 13 to 18 otters from north-eastern Pennsylvania and New York.

We hope to expand the river otter program to the Youghiogheny River in southwestern Pennsylvania in 1992 and '93. Habitat along the Youghiogheny is similar to that along Pine Creek and, as a result, project investigators are optimistic that an otter population can also be established along the "Yough" and its tributaries.

Through the otter reintroduction project, the Game Commission hopes to reestablish otter populations in all regions of the state. Ironically, before this reintroduction program began, the state's otter population was confined to the northeast. Now, however, rapid development throughout the Poconos may eventually threaten that region's otter population. Consequently, by establishing populations on public lands throughout the state, the Game Commission is acting to ensure survival of river otters in the commonwealth for enjoyment by future generations of outdoor enthusiasts.

Although otters had probably disap-



peared from southcentral and southeastern Pennsylvania, these regions are not included in otter reintroduction plans. In recent years, reports of otter sightings have increased along the lower Susquehanna River, apparently the result of otters expanding their range northward from the Chesapeake Bay. Reintroduced otter populations in northcentral Pennsylvania also offer potential for expansion throughout the Susquehanna River drainage. Consequently, reintroductions appear to be unnecessary in the Susquehanna.

Looking Good

The success of the Pennsylvania River Otter Reintroduction Project demonstrates that suitable otter habitat exists in many areas of the commonwealth. Overall, the future of the river otter looks bright in Pennsylvania. With continued wise management and a little good luck, it appears likely that this charming animal will continue its trip up from the bottom.



coll
alpina

Nine Rabbits by Noon

By Don Feigert

LIKE AN overeager 12-year-old, heart lthumping, I froze and listened as the classic beagle yelps and howls came closer and closer. I was along the bramble border of a swamp, trying to watch every possible avenue of approach. Out of the corner of my eye I could see Skip, off to the left, with his bright orange hat, standing on an earthen mound, twitching with anticipation. I couldn't see the other three members of our hunting party, but I knew exactly where each one was.

A flash of movement grabbed my attention. There he was. A big brown bunny skirting the edge where swamp met blackberry thicket. Moving broadside, he was in no hurry, 20 yards away. An easy shot. A lay-up. And I didn't hesitate. My old 12-gauge pump boomed and the rabbit sprawled lengthwise, white belly up.

"I got him," I yelled and quickly moved to pick up the game.

"Bring him over here," said Powser. We have called our father Powser for as long as I can remember, but I don't know why.

"Let's have lunch," Powser suggested as I walked up with the bunny. "It's almost noon. We've had a pretty good morning."

Pretty good, I wondered. Nine rabbits jumped in three hours. Nine rabbits in the game bag. Each hunter in the five-member party has scored at least once. A little better than pretty good. It had been a perfect morning of rabbit hunting.

Only a few hours earlier we had all met at Skip's "new" 80-year-old farmhouse in Mercer County. He'd bought the place the previous spring, and we'd done a lot of brush-stomping and dog-training on his 100 acres of woods, fields and swamp. But this opening day was our first hunt on Skip's new land.

We knew our prospects were good.

We had spotted dozens of rabbits during the previous weeks, and now we had lucked out with perfect weather. Temperatures were in the 50s, the sky was overcast, and the whole county was soggy from two days of heavy rains. The soaked ground meant good scenting for our beagle and little opportunity for rabbits to hole up.

We were three brothers and a brother-in-law in our 30s the year this hunt happened, and Prowser was in his 50s, but you'd have thought we were a gang of impatient adolescents the way we were sitting in Skip's kitchen, sipping coffee, telling hunters' lies, and glancing at our watches every 20 seconds, waiting for the 9 o'clock starting time.

At 8:50 we were out the back door. At 8:55 we were lined up on the border of the first field, a prime mixed-cover section of briars, thickets and high grass. Powser was hardly able to hold back Old Mike. Mike was the best and most eager beagle we ever hunted with. He barked only when the trail was hot, never back-trailed, never ran deer. He ran rabbits fast, but he rarely missed their checks and turns, and he always came back to us immediately after the rabbits holed up, ready for fresh game. Most hunting seasons we worked two or three beagles, but that particular year Mike was all we had. And even though there were five of us, he was all we needed.

At 9:01 we started in. At 9:03 I kicked the first bunny out of a small brushpile, and it took off across a small clover patch, heading for the blackberry thickets. Three rapid-fire shots rang out, and the rabbit somersaulted once and lay still, just short of the thick sanctuary.

"That's one," I yelled while hustling over to pick up the rabbit. Brother-in-law Dale held the animal up by the

WE CONGRATULATED Billy on a fine shot. He walked over and picked up the rabbit, a hefty 3-pounder. We admired the animal and watched Billy clean it before we headed in for lunch.



back legs, so I could field-dress it quickly.

“Three shots,” muttered Dale, shaking his head. He never could understand my quick shooting style.

Dale has never shot three times at anything in his life. He’s six-foot-five, and when he stands tall in his classic shooting pose, he looks like he belongs on the cover of an English sporting journal: shoulders square, shotgun level, hunting coat and hat spiffy and neat, tinted eyeglasses focused on the target, fully concentrating on that one good shot.

My hunched-over five-foot-ten frame blasting away in my battered old hunting coat doesn’t look quite right to Dale. The fact he doesn’t hit game any more often than I do, however, frustrates him a little, I think. I’ve always told Dale, “Hey, the more shot you put in the air, the better chance you have of hitting something.”

Still Goin’

Mike kicked out rabbit number two before Dale and I finished field-dressing number one. The first beagle bark-

ing of the new season rang out in the misty morning air, and all five of us scrambled into positions. Powser scaled an odd-looking dirt mound, remnant of an ancient strip-mining operation, and peered down into the brush and trails below. It wasn’t long before his little pea-shooter 410 popped twice and we heard him yell, “Still goin. Comin your way, Skip.”

The cottontail eluded Skip and quickly circled back toward Powser’s mound, almost to the exact spot where it had just been shot at—a suicidal cottontail if I’ve ever seen one. Powser’s gun popped true this time, giving us our second rabbit.

My brothers and I exchanged quick glances, happy Powser could share in the hunting success so early in the day. He was the least likely hunter among us to score on rabbits, and he often finished a day afield empty-handed. I realize now that he didn’t care a bit about taking game. A good hunt with his dog and his sons is all he cared about. Anyone who totes a 410 bolt-action is surely not out trying to put meat on the table.

Younger brother Billy kicked the next two rabbits out of low briars in a section of high ground above the swamp. He missed both rabbits twice, and after each miss we heard his laughter floating over the field. Billy’s a true aficionado, like me. He enjoys shooting, he enjoys getting game now and then, but being there is what matters. He loves the fields and woodlands and has a terrific time even if he misses every chance.

Unlike Billy is Skip, my older brother. He’s the best shot among us, whether wingshooting or rabbit-gunning. He can drop a ringneck or a rabbit on a single try with his little 20-gauge, while I’m booming 12-gauge misses all over the county. A missed shot is a missed opportunity to Skip,

and no hunt is successful unless it ends in bagging game. Skip downed the third and fourth rabbits of the day after quick chases and razzed Billy each time with a "thank you" for rousting the game.

A short while later Mike flushed a grouse from a small aspen grove. Billy tried two quick shots, and Dale made one long attempt. The grouse flew unscathed, out of sight, into a grapevine-entangled woodlot.

"You sure do miss a lot of game," I told Billy.

"I know," he said. "And I love it."

Just then Mike jumped a bunny near an old dead windfall oak tree, and his high-pitched hot-trail yaps and yips sent thrills through our hunters' veins. I looked over to my right and saw Dale in his shooting stance, a perfect picture of a tall hunter framed against the late October clouds. I watched him aim and aim and aim and finally shoot. He stood still for a moment, then finally walked over and picked up the cleanly killed

rabbit, not bothering to yell out his success like Billy and I always do.

At this point everyone but Billy had at least one rabbit. The five of us gathered together and strolled through a small stand of hardwood trees, not pausing to look for squirrels, not on this day, with the rabbits running strong and the dog doing his best.

On the other side of the woods we came to terrific looking cover: a woodlot logged out several years earlier. It was now a couple acres of stumps and brushpiles and brambly ground cover, with intermingling elderberry and blackberry ruins. An overgrown fence-row on the far end bordered a fallow clover field with a neighbor's acreage of field corn beyond that.

This was the type of cover Mike thrived in. He was a small beagle, not afraid to dig in under blackberry briars and brushpiles. We knew the low-cut solid-footing oak stumps would provide great vantage points for us once the dog

Fun Games

"Bowhunting Basics"

By Connie Mertz

Match the following with the correct answer at the right.

- | | |
|-------------------------|--|
| _____nock, shaft, craft | H. plastic vanes or feathers |
| _____spine | W. arrow point used in big-game hunting |
| _____broadheads | N. primitive type of bow |
| _____fletching | O. "resistance of the shaft to bending" |
| _____quiver | R. latest type of bow used by most hunters in PA |
| _____longbow | B. parts of an arrow |
| _____field arrow | E. most popular during 1950s-1960s |
| _____recurve bow | T. has a metal point |
| _____compound bow | U. used to protect arrow points |

Answers on page 64

It's with deep regrets that we announce the passing of former Game Commissioner Russell M. "Muddy" Lucas of Philipsburg. Mr. Lucas was appointed to the Commission on July 15, 1956, and served until November 1970. He was vice president from January 1965 to January 1967. He is survived by his wife, Ann, and two children.

got a bunny going. We could see down into the thick cover, and we could see each other easily and organize our stands by sight and signal. We all knew the bunnies were likely to run tight patterns among the slashings before making a break for woods or cornfield. Our strategy would be to post along the borders of cover and guard all the escape routes.

Mike's barking broke out suddenly, real music to a hunter's ears, and we all scrambled into position. I covered the lower corner of the woodlot, where it dipped down toward the big swamp. I looked at my watch. Almost 11 o'clock. Not quite two hours of hunting and five rabbits taken. Pretty darn good.

Almost Lunchtime

The next time I looked at my watch it was 11:30, and Skip and Dale had taken the sixth and seventh rabbits. Powser yelled out a suggestion that we head back toward the house. We were all expecting this. Powser's stomach and high noon never failed to make a date with each other. The rest of us would rather hunt straight through the day and then gorge ourselves after nightfall, but we accepted the fact that lunchtime was lunchtime with Powser. A cauldron of

chili simmered on the stove back at the farmhouse kitchen, and we knew that it was on Powser's mind as 12 o'clock approached.

We started walking a grassy trail back toward the house. Billy wandered over to a bramble of wild strawberry plants growing along the edge of the trail. A big cottontail exploded from his boot tops and took off at top speed toward the woods, its white tail bouncing wildly. Billy recovered from the surprise and took one quick shot. The rabbit rolled to a stop.

"Nice shot," I hollered. The other three laughed.

Billy smiled and shrugged his shoulders. He walked over and picked up the rabbit, a hefty 3-pounder. We gathered around to admire the kill and watch Billy dress it before heading for lunch. I felt the morning was complete. Eight rabbits taken, and all five of us had at least one. Three distant shots boomed mildly in the quiet country air just then, reminding me that there were other hunters and other hunting grounds in this world. I had almost forgotten.

We were halfway back to Skip's house when Mike kicked out the ninth rabbit and gave it his usual 10-minute circle chase that led to the easy shot described earlier. That one finished off a terrific morning of successful hunting and the kind of family comraderie you can get only by sharing an activity treasured by all.

We did go back out for a few hours later in the afternoon, and we did take four more rabbits, but that perfect morning is what I remember best about that hunting day. It was perhaps the finest three hours of rabbit hunting our family has ever enjoyed.

Thoughts While Walking

There is an inevitable divergence, attributable to the imperfections of the human mind, between the world as it is and the world as men perceive it.

—James William Fulbright



GLENN KOBANY, Olney, MD, dropped this trophy in Berks County. This year, through a program organized by Pennsylvanians for the Responsible Use of Animals, hunters will be able to donate venison to feed the hungry. When sportsmen have their deer butchered by participating meat processors, they can designate that all or part of the animal be donated to a food bank.

Hunters Sharing the Harvest

By Kurt E. Enck

THE ARRIVAL of fall and the flash of a white tail can mean only one thing: deer season. It's time to flex the bowstring, sight in the rifle, and finalize all the other arrangements to make the season a success.

This year, between now and when you tag your deer, there's something new you ought to consider, a program designed to help ease one of society's greatest problems and, at the same time, help enhance the image of hunters.

"Hunters Sharing the Harvest" is a new project through which hunters are being encouraged to contribute veni-

son to help feed needy people. This new program is being spearheaded by Pennsylvanians for the Responsible Use of Animals (PRUA), an association of wildlife managers, agriculturalists and biomedical/veterinary research specialists interested in promoting the continued wise use of animals. PRUA's "Hunters Sharing the Harvest" program evolved from discussions with the Game Commission, state Department of Agriculture, and trade associations representing food banks and meat processors.

Here is how the program works. You, the hunter, take your deer to a partici-



pating meat processor, pay to have it butchered, and then tell the processor you want all or a portion of the venison donated to a food bank. The processor, after preparing the meat, will contact the local food bank which, in turn, will pick it up and distribute it to shelters, soup kitchens and other outlets that provide food for the needy.

Tim Whelan, director of the South Central Pennsylvania Food Bank—which distributed 5.6 million pounds of food in 1990—supports this program and believes it will help food banks with their greatest need—meat. “Food banks always need meat products. We never have enough,” Tim says. Tim’s also certain that the venison will be readily accepted and appreciated.

Common Sense

Kenneth E. Brandt, the executive vice president of PRUA and a former state legislator from Lancaster County, said the program is being introduced at a good time. “For one reason or another, an increasing number of Pennsylvanians aren’t getting enough to eat,” says Brandt. That, coupled with the fact many hunters will get two, three or possibly even more deer this year, there no doubt will be a surplus of venison. It’s simply common sense that any excess should be channeled into the hands of those who really need it.

Such an idea is hardly new. Hunters were instrumental in providing food for our nation when it was being settled. Generously providing food for those

less fortunate today is just a continuation of that rich heritage.

More recently, programs similar to Hunters Sharing the Harvest have proven successful in other regions of the country. The Food Bank of the Rockies, based in Denver, CO, participated in a program sponsored by Safari Club International called “Sportsmen Against Hunger.”

“We’re proud to be a part of Sportsmen Against Hunger,” said Richard C. Rank, president and CEO of Food Bank of the Rockies. It’s a win-win situation because the needy are receiving nutritious food while venison and other wild game is being fully utilized.

Kayla Callas, spokesperson for the food bank said, “As successful as the program was last year, we expect even more donations this year, now that more hunters are aware of the program.”

The key to making Pennsylvania’s program a success begins with sportsmen, and considering the size of our deer harvests here, “Hunters Sharing the Harvest” holds a tremendous potential. If this year’s deer harvest approaches the more than 400,000 taken last year—and there’s no reason to think it won’t—an average donation of only five pounds per deer will amount to more than two million pounds of venison.

Aside from just the satisfaction of sharing their harvest, hunters get something more in return—good publicity. And the need for good publicity cannot be overestimated, particularly in this day and age when animal rights groups, showing no regard for the facts—or even common sense, it seems—are attacking the sport from all angles.

An opportunity to help feed the hungry is the heart and soul of “Hunters Sharing the Harvest,” and PRUA strongly encourages all hunters to take part in this project. Continue the heritage that was started by our forefathers. This year, “share your harvest” so others will not have to go without.



A BRANCH midway up the tree moved slightly. Stealthily, I positioned myself against the hickory that had been my concealment since before dawn. Scanning carefully, I made out the form of a nervous gray squirrel. I squeezed the trigger and the squirrel fell. The hunt was particularly special because I was using a muzzleloader.

Patch, Ball and Bushytails

By Jim Ciprich

THE MORNING SUN had risen for barely 15 minutes when the staccato of distant shotgun reports echoed through the hollow below me. As if by instinct, I slowly looked to my right to the towering white pine that only minutes before had been one of many shadows in the still woods. A branch midway up the tree moved slightly. Stealthfully, I positioned myself against the hickory which had been my concealment since darkness. Scanning carefully, I made out the form of an ever nervous gray squirrel. Raising the rifle until I felt the familiar cheek piece against my face, I slowly aligned the sights, carefully squeezed the trigger, and was rewarded by the barely audible

thud as the plump gray fell to the pine covered forest floor.

Sound like a typical hunting tale? Of course it does. What makes this actual hunt particularly special, however, is that I was using a small caliber, caplock, muzzleloading rifle.

Muzzleloading has been going on for quite some time, hundreds of years actually, and I often wonder if the relatively new fangled cartridge guns that are currently the rage, will ever really catch on.

Seriously, I'd like to discuss the small bore muzzleloader as a viable hunting tool. First and foremost, I would like to dispel a common misconception. These arms will do anything a more contem-



porary arm will do except provide fast repeat shots. And, of course, the range must be kept within the capabilities of the muzzleloader. Nimrods accustomed to black powder guns know this to be true, and beginners, after being acquainted with the old time soot belchers, soon realize this potential also.

To big game devotees, muzzleloaders are commonplace, witnessed by Pennsylvania's popular flintlock season. Small game hunting with black powder, on the other hand, is still in its infancy among the hunting fraternity.

Before we discuss the whys of small game muzzleloading, let's talk about equipment. Squirrels are the most demanding quarry, so indulge me while I describe the necessary tools of the trade. The rifle must be accurate, capable of head-shot accuracy. The rifle must also be light and handy, although the longer rifles do a very credible job. Caplock is preferred over flintlock, due to slightly faster lock time, and the gun

THE FIRST TIME I tried muzzleloading for small game, my hands shook and my heart raced when I took a bead on the first gray squirrel of the day. The excitement I felt was as intense as it'd been when I first started hunting.

should be of a small caliber, 32, 36, or on the heavy side, 40.

I use a Thompson Center 32 Cherokee with a 24-inch barrel, adjustable sights. It weighs in at slightly under six pounds. With a load of FFF black powder and a 45-grain ball, I can get five shots—from a benchrest—into an inch at 50 yards.

Powder horns and flasks are both suitable for carrying powder, but use a measure for safety's sake. A capper is nice to have for dispensing those necessary devices, and a loading block sure does come in handy.

Quite a number of manufacturers are producing fine quality firearms, and a wealth of information is available concerning the care and use of front-loaders. So do some research before making your investment.

Today's array of modern firearms are truly remarkable in terms of function and reliability, so why, you may ask, go back to an antiquated system of harvesting game? That's a legitimate question, one which I'm asked quite often.

Answering that question isn't easy, but I'll try to explain.

One of my avocations is serving as a hunter education instructor for the Game Commission. My specialty is "Hunter Ethics." I try to instill in my students a sense of values that transcend the mere act of harvesting excess game animals.

I am in no way belittling the use of modern firearms. I own and use them regularly. But one should reflect on why we hunt. Ask a million Pennsylvanians why they hunt, and you'll get a million different answers.

Simply speaking, muzzleloading adds a new dimension to small game hunting. The first time I tried it, four years ago, my hands shook and my heart raced when I took a bead on the first squirrel of the day. The excitement I

felt was something I hadn't experienced since I began hunting 15 years earlier.

Perhaps it's a sense of romance, or a latent wish for a simpler time, but when I got into black powder squirrel hunting, it somehow felt right. Maybe it's the uncertainty of the shot or the cloud of white smoke. One thing, small game taken with a muzzleloader seems to taste sweeter.

If bagging a daily limit is your primary motivation, don't consider using black powder. With a smoke pole, you'll be doing well to get four or five squirrels for the entire season.

Also, I don't recommend going hunting with those who choose smokeless powder. The two styles of hunting clash, so go by yourself or with a partner who has also inhaled the aroma of black powder.

Respect for wildlife is a consideration with front loaders because, believe me, after you've been humbled by several aborted shooting attempts, you'll definitely respect the critters you're after.

The first season I tried this sport I passed on seven squirrels before I was offered a sure shot. Bushytails have a habit of not staying still, so shots with a caplock must be chosen carefully. Another annoying circumstance which occurs with regularity is in the event your first shot misses, Mr. Gray will bark at

and scold you while you frantically try to reload. Of course, by the time you've finished, he's gone. I never said this sport was easy.

The best technique is to play the waiting game. It's also a good idea to scout around before the season and find an area which indicates squirrel activity. Look for leafy nests and chewed hulls of beech nuts, acorns and hickory nuts. I find the typical, open woods type of squirrel habitat to be detrimental. I search for a stand of hemlocks or pines. Such cover makes for good hunting because shots should be limited to 20 or 30 yards.

Muzzleloading is a good conservation tool because you'll either harvest the game or miss cleanly. There's no middle ground when carrying the firearms of our ancestors.

There are safety aspects which are unique to this activity, so at the minimum, study and understand the guns before using them. Or, better yet, have someone with experience instruct you in the proper loading and handling techniques.

Front loaders for squirrel hunting is not for everyone, and I don't suggest that everyone try it, but if you want to slow down a little and take time to smell the roses, then I wish you good luck—and keep your powder dry.

Opening September 2, this year's dove season is again being conducted under a split format. The first portion will run through Saturday, October 12. Legal hunting hours are noon until sunset. The season will then reopen Saturday, November 2, and continue through Saturday, November 30, during which time shooting hours will be from a half hour before sunrise until sunset. The daily limit of doves is 12, with no more than 24 in possession after the first day.

As for woodcock, this year's season is again somewhat restrictive in order to protect current population levels. The woodcock season will open Saturday, October 26, and continue through Saturday, November 16. The daily limit will be three, with no more than six in field possession after opening day.

Other migratory birds seasons and daily bag limits known at press time are, respectively: Virginia and sora rails, September 2 through November 9, 25; moorhens and gallinules, September 2 through November 9, 15; and common (Wilson's) snipe, October 26 through November 16, 8. Waterfowl seasons will be announced later.



BANKER'S HOURS BUCKS

By Derek Roth

I GOT OFF TO a late start the second day of the rifle season, but when I climbed from the car I decided it was just as well. The red line on the thermometer hung well below zero and a wind squall had kicked up. In short, it was a miserable, frigid day. I figured most hunters who'd entered the woods before dawn would be up and moving now that nine o'clock had rolled around. I was counting on seeing a lot of deer as folks stomped around trying to get warm.

I slipped into the woods and worked around a ridge, trying to get out of the wind. While I contemplated the merits of my position, I saw movement several hundred yards out in the open woodland. The snow covering made a perfect background as the buck picked his way carefully, yet quickly, through the timber. I found his rack in the scope and then dropped the crosshairs to his shoulder. At 130 yards out he veered away, and I decided it was now or never.

When the 300 Savage cracked, the buck flinched but recovered and bounded off down the mountain. I waited a few minutes and then picked up the trail, which was specked with blood. Ten minutes later I made the killing shot when I spotted the wounded buck slipping through some saplings.

As I field-dressed the buck, I saw my cousin walking down the mountain toward me. As I suspected, he had gotten into the woods at dawn and darn near froze in the first hour. He had been walking to keep warm when he heard the shots and picked up my trail. He'd glimpsed only one deer up to that point, probably because he couldn't stand still in the cold.

I knew the perfect way for him to get warm, and we both worked up a sweat dragging the deer to the car. The interesting thing about the drag was that we

saw two different groups of deer while we were pulling the buck up the mountain. Each was coming toward us, probably pushed out or spooked by a cold hunter moving around. Arriving late and standing while other hunters were moving gave me the advantage that day.

When I got home, I decided to jot down the approximate time of kill for the deer I had harvested over the years. The results were very interesting. I've taken 17 deer in the last 20 or so years, and all but two were taken between the hours of 9 a.m. and 4:30 p.m.—the exact hours my bank is open for business. Early morning was the worst time for me and midafternoon was best. In fact, until I wrote down the times of kills, I hadn't realized just how productive the afternoon hours had been. And all the deer were taken on public land.

I still like to be in the woods at the crack of dawn on the opening day of buck season, but I rarely see deer early. Many years ago I did have the opportunity to shoot a buck at first light and dropped the deer in its tracks. Unfortunately, it staggered back to its feet and some other hunter got it.

A lot of hunters does mean competition, but it also means a lot of guys are futilely chasing deer around a mountain. If a hunter can anticipate the time and general direction of other hunters' movements, he can often predict deer movement as well.

Whitetails move around pressure. They are not likely to leave familiar surroundings, but they are going to move away from hunting pressure. An unlikely stand somewhat removed from the bulk of the hunting pressure can often lead to success during the midday hours.

Back in my younger days I remember driving into a heavily forested area in a 4-wheel-drive vehicle. I came across a senior citizen standing not more than

20 feet from the road still within sight of his car. I distinctly remember thinking the guy didn't have a chance in the world of bagging a deer at that spot. When I came out later that day, he was sitting on a buck with the heaviest antlers I'd seen from that area.

While I, and darn near every other hunter, tramped through the deep woods, he stood where he knew no one else would. He picked a spot with no other hunting pressure and let the competition work for him. Looking back, I'm not surprised he scored.

The general rule of thumb for many hunters is to stand in the early morning, go back to the car or cabin for a mid-morning rendezvous or snack, walk around a little, meet again at lunchtime, maybe drive around for an hour or two, and then get back into the woods for the evening hours. Most hunters won't admit to that, yet every deer season I watch in amazement as a sea of orange-clad hunters heads out of the woods toward parking lots in mid-morning and at lunchtime. That is the time to be on stand. You don't have to

get up early to score on public hunting grounds. It's better to come late than leave early.

In addition to understanding the patterns of the average hunter, you need to understand the habits of whitetail deer. It is a common misconception that deer feed at night and lie around all day. In forested areas where they are not bothered through most of the year, deer don't hole up all day. They move in cycles 24 hours a day. They feed for a while then lie down for a couple of hours, then get up and mosey around again, and so on throughout the day.

An influx of hunters disrupts this cycle to a certain degree, but deer still move during the day. If you can get on stand and stay put when hunter movement coincides with natural deer movement, you have an excellent chance of scoring on a whitetail.

My recommendation for the best hunting hours might not be echoed by the experts, but they sure work for me. I feel more relaxed by getting into the woods around 9 a.m. than by getting in at 6. And I'm less fatigued at the end of

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TWENTY minutes later I spotted another deer moving out of the thick cover. I immediately saw the small spikes glistening in the sun. I agonized over whether I wanted to end my season by shooting it.

the day. If you hunt public areas, be on stand and *stay put* from about 9:30 until noon, and again from about 2:30 until sunset.

I think the afternoon is actually the best time to bag a buck. Deer are in a natural movement period and many hunters are either strolling about or have taken poorly selected stands. Since a lot of hunters don't really pick an afternoon stand—they just plop down somewhere—you can use that to your advantage.

Look for difficult terrain away from a parking area. Tired hunters aren't likely to tackle such an area, but deer will. Be on stand no later than 2:30 and stay still until sunset. Whitetails move earlier in the afternoon than many people think, so it doesn't hurt to get in a little earlier than 2:30 if you have the patience to stand longer. Last year was a perfect example.

Early in the rifle season a snow squall dropped visibility down to a few feet by midday. Shortly after noon the skies abruptly cleared. I decided to get on stand by two o'clock, figuring the deer might take advantage of the break in the weather to do a little snacking. I had selected a good afternoon stand and I was relieved to find no other hunters near it.

As I approached my stand, a white tail went up and I silently scolded myself for not starting even earlier. The deer bounded away cautiously—I couldn't tell if it was a buck or a doe—so, to avoid pushing the deer, I waited a few minutes before moving on. Twenty minutes later I spotted another deer moving out of thick cover. I immediately saw the small spikes glistening in the sun. The deer meandered around for several minutes, digging up acorns and ferns while I agonized whether or not I wanted to end my season by taking a spike.

When the buck stopped and looked

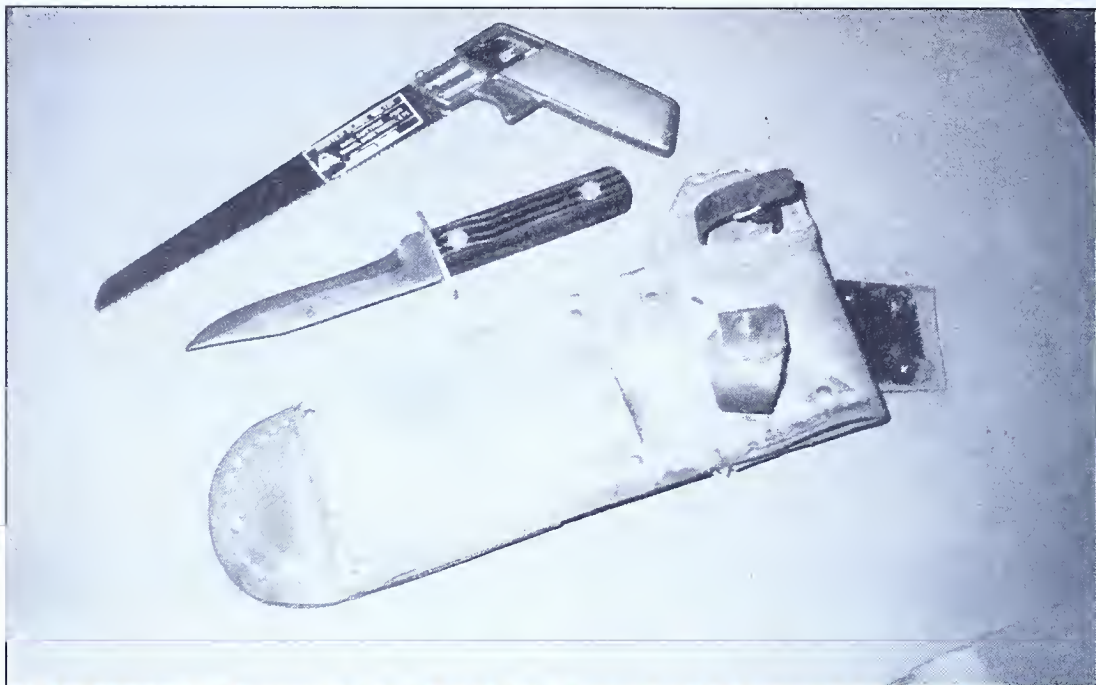


right at me I realized it was time to make up my mind. I dropped the cross-hairs to its chest and squeezed off a round. I was using a 243 on whitetails for the first time, and I wasn't sure what to expect. The tiny spitzer hit its mark and the deer buckled, but didn't go down. Remembering the 5-point I lost nearly two decades before, I took another shot as the buck crashed through some grapevines. That anchored him.

Revise Your Strategy

Stick with what works for you if you're successful year after year. If you consistently come home empty-handed, maybe now is the time to revise your strategy. Consider hunter movement and deer movement when you pick a stand. Do the unexpected. Make your afternoon stand a top priority. Get out late in the season. Hunters who give up after the first day are missing out on tremendous hunting opportunities.

I still like to watch the sunrise on the opening day of the season—it has become a tradition. After the first day, however, I intend to sleep late and enjoy hunting those banker's hours bucks.



IN AN EFFORT to lessen the hard work that comes with dragging a whitetail out of the woods, the author designed a set of tools strong enough to cut up a deer, yet light and small enough to be easily carried. With some alterations to existing tools and a bit of ingenuity he found a solution.

Halve the Drudgery of the Drag

By George L. Harting

THE HUNTER-TRAPPER course moved well. The point was reached in the schedule when the wildlife conservation officer in charge invited questions. A query was promptly raised, and it was apparent the inquirer had logged many adventures afield.

"In 1985," he began, "I underwent spinal surgery. This past January a total knee replacement was required. Is there any reason why a harvested deer should not be cut into parts so it can more easily be moved from the mountain?" The officer assured the veteran his suggested procedure violated no hunting regulation. I was that inquiring class member.

A joyous hunter was admiring the deer he had just shot. After his initial excitement abated he remarked, "Now the fun's over and the work begins." He was referring, of course, to the chore of

dragging his 6-pointer back to camp. Another nimrod responded with an expletive as he contemplated moving his spike over the hill to his car. All hunters, but particularly the older ones, before heading afield, should consider how their big game kills will be taken from the woods.

Some among us set a rugged pace for life. All assignments must be completed quickly, every race won, every weight lifted. Such an intensive way of life can deal debilitating consequences to the human physique. To capitulate is defeat. To develop techniques, however, that exchange the bluster of youth for the restraint of age is compensation at its best. One basic consideration for the senior participant is dealing intelligently with the chore of dragging a deer.

In reflective moments, visions of a

beautiful 9-point come to mind. It was 9 a.m. on the 1951 opener when an accurate shot from my Winchester Model 94 dropped him on the spot. With that reflection is also the memory of the mile-and-a-half drag, over frozen bare ground, to get him to camp. I was in my early 30s then; challenges were the essence of life in those days. The drag began in a Pocono rhododendron swamp where the animal had sought refuge.

Things have changed considerably since '51, and some new approaches are essential for dealing with the "drudgery of the drag."

I tend to be a loner. Such a life-style for a senior hunter, however, does raise some concern. I dream of the time when telemetry equipment used to track wild animals will be available for the safety of the hunter.

But back to the chore of dragging a deer to camp. The solution has its genesis in my 1960 big game hunt in Slew Creek, Montana. I saw many interesting things during my eight-day stay. One practical technique I learned from our outfitter was how to pack out big game animals. In jig time he had skinned, quartered and loaded his pack horses with elk quarters.

As physical handicaps demanded attention, I remembered the sheathed knife-and-saw combination our guide carried on his belt. It was the perfect tool for fulfilling his role as an outfitter. And now that a WCO had assured me that halving a deer was perfectly legal, I determined I would pack a similar knife-and-saw combination. My goal was to reduce the struggle of dragging a whitetail.

My first efforts did not produce immediate results. My cutting combination was to be small, considerably shorter than Montana's professional style. A smaller unit, I felt sure, would be adequate for Pennsylvania's white-tails. I was repeatedly stymied in my efforts to find a saw; it had to be small, but strong and sharp. Transporting the equipment dared not become an encumbrance. Therefore, I had to acquire

the saw before I could design a sheath suitable for both it and my knife.

One day I was elated to find an Allway Master saw designed to cut nails in plywood paneling. The blade was just 7½ inches long and designed for metal cutting. It would be just right for cutting the hard bones of a whitetail. But after trying it out on several materials, I found its flimsy narrow blade did not have enough backbone.

Renewing my search I was surprised to find Allway made a big brother unit. But this saw, too, had a drawback. The handle was considerably larger and fitted with a trigger-hold handle. For sawing, it was just fine; for transporting in a sheath, though, it was unacceptable.

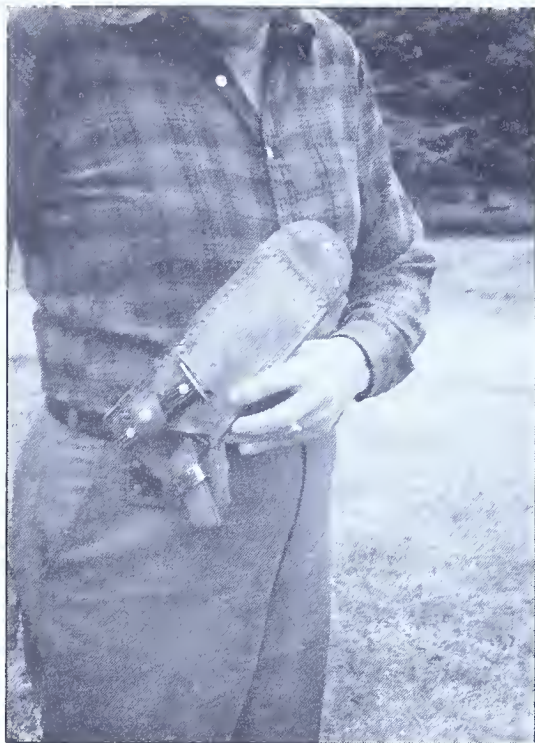
I was struck, however, with the similarity of the two units. As it turned out, the smaller handle could be altered to fit the larger blade. I also cut several inches from the larger blade, so the saw measures in at 10 inches.

A Double-Pocketed Sheath

I owned a saddler's bench back in the '30s and used it to keep the harness for our four horses in top shape. That experience gave me the expertise to build a rugged carrying sheath. Yard sales provided the leather, and waxed nylon cord replaced the traditional cotton braided sewing twine.

For designing the sheath I placed the saw and knife on a piece of cardboard and experimented with various arrangements. After I settled on the most suitable positioning, I outlined the contours on the cardboard. From that point it was just a matter of transferring the pattern to the leather, and then cutting and sewing. The rear pocket of the dual pouch sheathes the saw, and the knife is secured in the forward pouch. The finished product pleased me immensely.

The opening day of the antlerless season was discouragingly dull. Day two would find my partners back at work; I would be in the deer woods alone. At 9:30 on "Preacher's Trail," it happened. A young doe elected to stare me out. I won the contest. And then I



HARTING designed the sheath to have two pockets, one for the knife, the other for the saw. Utilizing an independent belt loop and a bolt, the sheath pivots 360 degrees for comfortable wear.

I took the front half directly to my car and then returned for the remainder. In areas where an animal might be molested, each half can be moved in relays, just so far that both halves can be kept in sight at all times.

I was pleased that the open ribcage of the forepart showed essentially no soiling from the drag across the forest floor. The rear half poses no problem at all because the open cavity is well elevated from the ground by the drag rope.

Skinning and dressing the animal was done in the usual fashion. For the front section, after the ribs were skinned clear, ropes were tied about the ribs then fastened to the skinning gambrel. For butchering the back half, the rear legs were attached to the skinning gambrel in the traditional manner, as when an entire deer carcass is hung.

Modifying The Design

The length of the sheath became a problem. When I was sitting in a car, on a log, or on a hunter's seat with the sheath on my belt, it pushed upward uncomfortably. The belt loop was too narrow to allow the sheath to pivot. An easy solution was found. I used a $\frac{5}{16}$ -inch bolt with an extremely large flat head. An independent belt loop was fashioned; it was strengthened on the side toward the sheath with a light piece of sheet metal. A hole was punched into the belt loop on the sheath; the bolt was pushed through it and fastened to the independent loop. This revision now allows the sheath to revolve 360 degrees while it is attached to a belt.

I intend to never enter the deer woods again without my skinning and dressing tools. They give me great peace of mind by halving the drudgery of the drag.

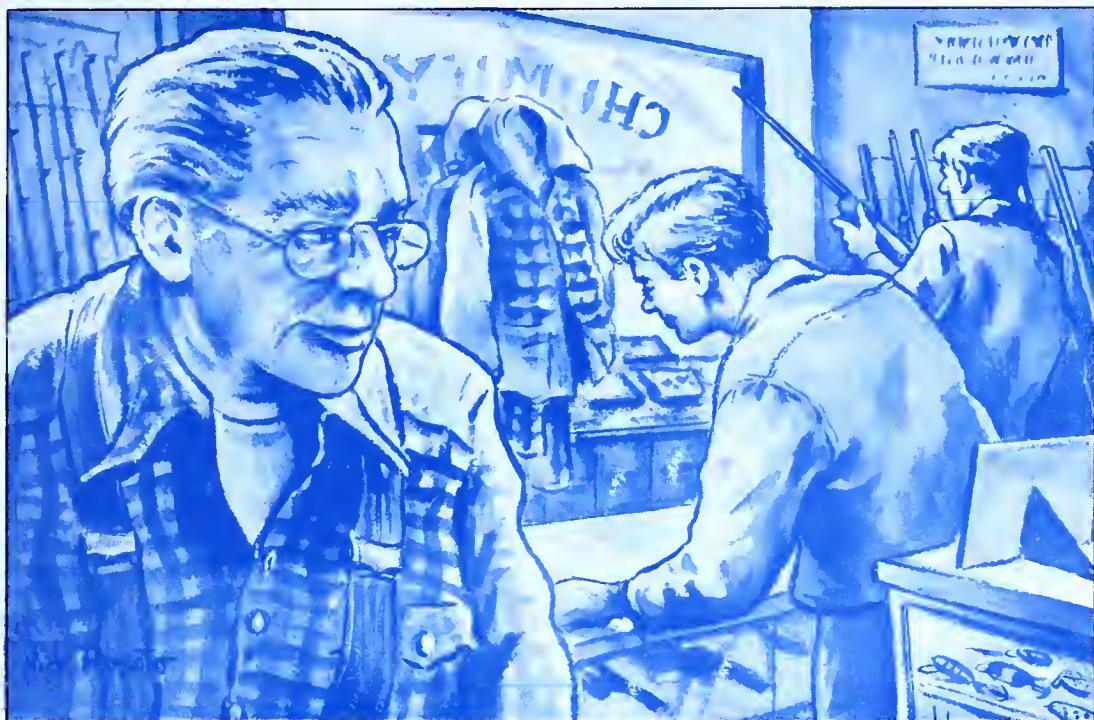
found myself alone in the woods, a good half-mile from the car. It was a perfect opportunity to test my new tool.

The doe was field-dressed in the traditional manner. Upon completing the chore, I prepared to cut the carcass into two parts. I pushed my knife between two ribs, up high against the animal's backbone. The incision was completed from spine to the field-dressing belly incision, which was just below the animal's breast bone. I then turned the animal and cut its other side in similar fashion. The test was now to be made of the saw's efficiency. With significant ease I severed the backbone; the carcass now lay in two parts.

The Drag

I placed my rope around the deer's neck, and the front half was ready for moving. I made a slit between the second and third remaining ribs on each side of the hind quarters. A second rope was pushed through these rib slits, and the back half of the carcass was now ready for the drag rope.

Having the woods virtually to myself



MY HUNTING partner and I stopped by Chumley's Outdoor Emporium to pick up a few things for the upcoming squirrel season. We prowled the aisles for a while, just browsing. Chumley would occasionally peer over his wire-rimmed glasses, studying us.

The Hard Sell

By Jack Straw

KUDOS to the outdoorsman who can go to a gun shop to buy, say, a box of rimfire ammo and walk out with just a small cardboard box tucked in his pocket. In the unlikely event I meet such a person, I'll gladly hire him to do my shopping.

These days I'm what people refer to as gainfully employed; the local repo men no longer cheerfully wave and call my name when I walk down the street. So the fact I lose control when I go to pick up a few "necessities" at the sporting goods store is no big deal. But that wasn't always the case . . .

It wasn't that I was intimidated by sporting goods salesmen in my green-horn days, or even that I needed (translated: wanted) that much stuff. But the heady smells of gun solvent and new

leather boots, and the sight of gun racks bristling with sleek, shiny firearms always caused some sort of insidious chemical reaction that rendered me helpless.

I was in my late teens and had been working hard all summer to earn money. Early small game season was nearing, and I needed to "pick up a few things." Last season's pairs of hunting socks had split into singles—the mates eaten by the dryer, no doubt—and my brush pants required replacement.

And, of course, I had to buy a box of shells. There was a good crop of squirrels that year, and I was looking forward to frying a few for dinner.

It was a hot Indian summer afternoon when my hunting partner Ace Dube and I strolled into Chumley's Outdoor Emporium. Thinking back, I



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realize how shrewd Mr. Chumley really was. The initial stage of his attack plan was terrifyingly simple—he ignored us.

We prowled the aisles for a while, just browsing. Chumley's wasn't exactly a clean, well-lighted place, which automatically endeared it to Ace and me. Much of the merchandise was displayed bargain-bin fashion, and like crazed archeologists we dug to the bottoms of the barrels where all the good stuff had to be.

Chumley would occasionally peer over his wire-rimmed glasses, studying us.

After a while, I moseyed up to the counter and asked, in my best veteran hunter tone, where the heavy socks might be.

Chumley shook his head slowly as a pained look crossed his face. "Heavy socks?!" he said. "What's the matter? You worried about cold feet?"

"Well . . ."

"Electric socks. That's what you need."

"I really don't . . ."

"C batteries," he announced. "Keep your feet warm all day—even in a frozen swamp during a snowstorm."

"That's great, but it's only October and . . ."

"You're a squirrel hunter, I can tell," Chumley said as he stuffed the electric socks and batteries into my hands. "You're gonna need a call," he said and propelled me down an aisle.

"I got several here; all different tones," he said as he began grabbing boxes from a barrel. "Squirrels are just like people; their voices are personal-like, so you have to have different calls to talk to different squirrels."

"Umph," I said.

I spotted Ace circling the glove rack and making toward the door. I shot him a pleading look, but he twisted the knob and slipped outside. I suppressed a tremble and turned to face Chumley.

"Gloves, of course you'll need gloves," he said, apparently mistaking my glance toward the rack as one of longing. "Handwarmers, too. Can't shoot proper with cold fingers."

My stammered protests fell on deaf ears as wool and cotton gloves and red velvet-covered handwarmers were thrust into the growing pile of gear under my chin.

"And a hat," he said and slapped a cap on my head. The fluorescent orange hat, complete with synthetic fur trim, slid down over my ears and obscured my vision as its brim settled on the bridge of my nose. "Looks good on ya," Chumley said with an authoritative nod. "Let's put this stuff on the counter here. Say, you're not goin' hunting in those blue jeans, are you?"

"No, that's one of the things I . . ."

"Got just the ticket over here," he said and steered me through a maze of cardboard boxes to a long table on the other side of the shop. "What size are you, boy? Here, try these. Genuine leather-front brush pants. Guaranteed to stand up to greenbriars and barbed-wire fences."

He slapped the stiff pants against my side and gave a grunt of approval. "Perfect." Then he stopped and frowned, as

I WOKE Ace from his nap and asked for his help in loading my newly purchased equipment. We heaved the huge box onto the truck bed. It landed with a thud.

if he'd run out of things to pawn off on me. I saw my opening.

"Guess I'd better pay for this stuff and be going," I called over my shoulder as I hurried toward the register and the huge mound of equipment.

"Shells!" he cried and rushed to the counter. With a sprightly leap, he vaulted over it. "What gauge?"

"Sixteen," I muttered, defeated.

"Okay, now for close-range squirrels you'll need these No. 6s. Of course, when they're high up in the trees, copper-plated 4s are the only way to go. Grouse will be in season, too, you know. You'll have to have these 7½s; better take a couple boxes—they're hard to hit." He was on a roll, and he stacked the brightly colored shotgun shell boxes on the counter like a man sand-bagging a broken dike during a flood.

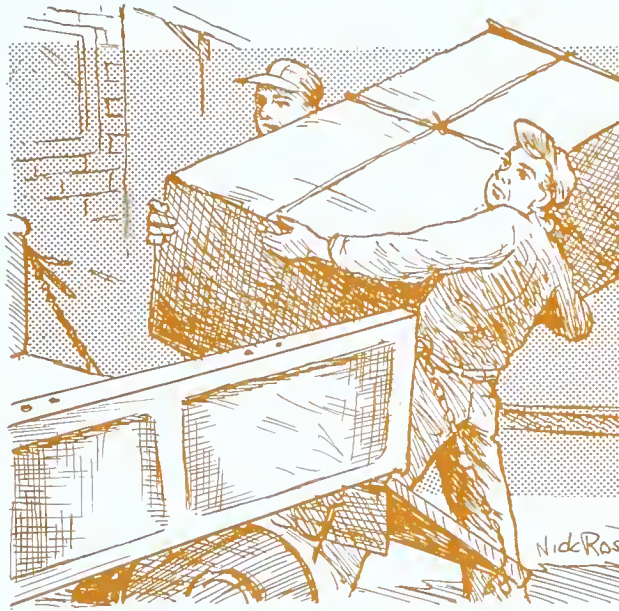
I had to make a stand. I didn't need all this junk.

"Listen, sir," I said, "there's more here than I can make use of. I really hunt squirrels only to scout for fall turkeys and . . ."

"Turkeys?" he said in a low voice. "Did you say turkeys?" A smile crept slowly across his face.

Ace was dozing comfortably when I got to the truck. I rapped on the window to wake him.

"Help me lift this box into the back,



will ya," I said, trying hard not to look at him.

"A refrigerator? Why'd you buy a refrigerator?"

"Don't get smart. It's the only box he had."

Sure Is Heavy

"Man, this sucker sure is heavy," he said with a grunt as we heaved the box onto the truck bed. It landed with a thud. "Just be glad you didn't tell him that you're takin' up duck hunting this year."

"Duck hunting?!" Chumley yelled gleefully from the open window. "Did you say duck hunting?"

I guess old Chumley wasn't so smart after all. He'd forgotten to take my keys.

Cover Painting By Dennis Burkhart

Barred owls are fairly common in the state but rarely encountered. Up to 20 inches in height and with nearly a four-foot wingspan, the barred owl could only be confused with the even larger great horned owl. Unlike the great horned and all other Pennsylvania owls, which have yellow eyes, the barred owl—if a good look is offered—can be identified by its black eyes. It's likely best located by its distinctive, *who-cooks-for-you, who-cooks-for-you-all* call. These denizens of the more forested areas of the state feed on reptiles, amphibians and other small animals.



HOLDING monthly meetings, often with guest speakers, above, PWHU is involved with many natural resource management issues. Below, Ron Agosti, left, checks a nesting box constructed by Mike Sheesley. Every year, PWHU donates materials and completed boxes to schools, Scout groups and others interested in helping wildlife.



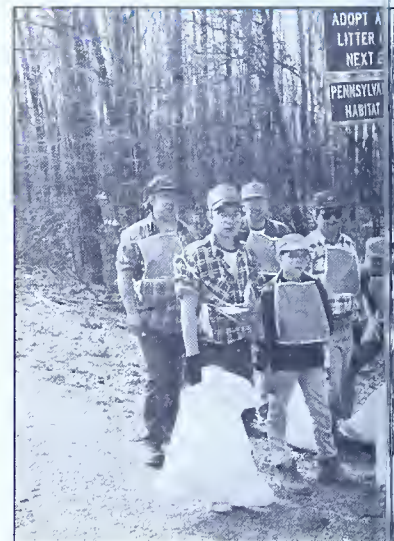
Charlie Burchfield

PWHU members prune dozens of fruit trees every year, providing immediate benefits to a wide variety of wildlife.

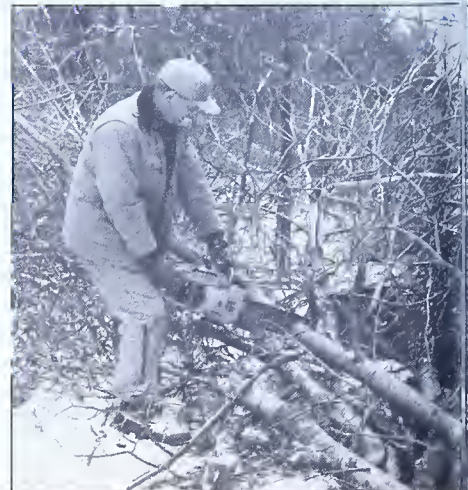


Colleen Shannon
WCO, Clearfield County

HAVING ADOPTED a tree through the Moshannon project, Colleen Shannon and her group conduct regular clean-ups to recycle the aluminum cans from the roadway.



Photos by
unless otherwise noted

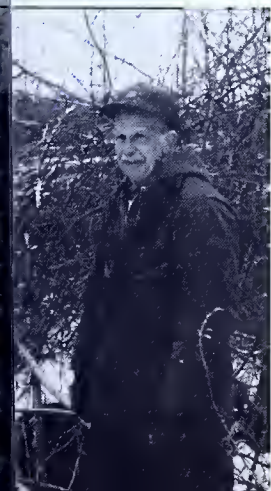


Pennsylvania Wildlife Habitat Unlimited is a group of conservationists—hunters and nonhunters—committed to protecting and improving wildlife habitat. Through a variety of projects in the tri-county area surrounding DuBois, club members are not only conducting many habitat improvement projects, they're also working to increase public awareness of wildlife's needs. Here are some scenes of just a few of the group's many activities. For information on starting a similar club in your area, write PWHU, P.O. Box 851, DuBois, PA 15801.

stretch of Route 322 Forest, club members work. Participants even find glass retrieved from



Grieneisen, credited.

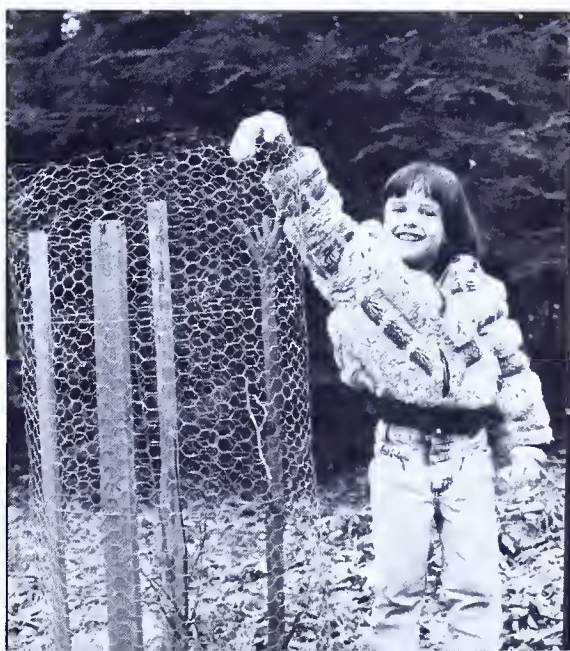


DON SCHMIDT and John Uren, left, cut browse and create a brush pile for wildlife on SGL 93. Right, Becky Grieneisen inspects one of the more than 200 seedlings the club has planted.



Jerry Zeidler

AS A TRIBUTE to the club's many outstanding contributions, PWHU was recently awarded the Game Commission's Working Together for Wildlife award, presented here by Clearfield County WCO Colleen Shannon to PWHU President Rick Uren.





FIELD NOTES



"D" Stands For. . .

ADAMS COUNTY—A couple weeks ago, Deputy Clarence Cluck was sent to remove a roadkilled deer (which we call an RKD). Clucky arrived to find that it wasn't a deer but, instead, Snuffy—a 450-pound donkey. With help from the animal's owner and two police officers, they managed to drag Snuffy to a field where it could be properly tended to. Now Clucky asks that dispatchers be somewhat more specific when they ask him to pick up an RKD.—WCO Steve Spangler, East Berlin.



Home Improvement

BRADFORD COUNTY—It seems last summer's hot weather prompted some wild animals to prepare for a hard winter. A construction worker told me that while working on a new home one hot summer day he watched a groundhog wandering around a scrap pile. The chuck soon latched onto a strip of plywood six feet long and four inches wide. The carpenter then watched in amazement as the chuck and the lumber disappeared down a hole. I told him to be sure and let me know if he sees a stove pipe disappear.—WCO Richard P. Larnerd, Warren Center.

Continually Amazed

LACKAWANNA COUNTY—After 19 years of law enforcement, nothing should surprise me. But the following incidents that occurred last spring leave me wondering. I stopped a motorist for throwing a bottle from his car. His explanation: "I helped the Cub Scouts clean up the litter on this section of road last week." I warned a large group of people illegally camped on game lands that I would return in an hour to make sure they had cleared out. As I got into my truck, I overheard someone mutter, "Be sure and bring lots of tickets." An hour later I was back with lots of tickets. Apparently, no one understood that warnings are free and citations cost money.—WCO Chester P. Cinamella, Moscow.

Public Information

CLEARFIELD COUNTY—Last bear season, Reed Johnson and his fellow hunters saw 20 bucks while driving a hillside for bruins. They were so impressed that they returned and conducted the same drive on the second day of buck season. They chased out four bears and no deer. Reed is now accusing me of giving a copy of the seasons and bag limits to the animals.—WCO Colleen M. Shannon, Luthersburg.

Seconds, Anyone?

SNYDER COUNTY—I received a radio call that an opossum was stuck in a restaurant's dishwasher. The manager wanted it removed quickly because they were expecting 30 people for a luncheon in an hour. I then got some anonymous advice over the radio, telling me I had better get another opossum because one wouldn't be enough to feed 30 people.—WCO John Roller, Beavertown.

What? No APB?

Forester Warren Harris and I were showing a commercial timber sale on SGL 35 when one of the prospective bidders asked if bears were in the area. I told him the population was increasing in that area of Susquehanna County. If he didn't believe me then, he does now. When we returned to our vehicle we found that the wind deflector had been torn off its roof and the side window shattered, and that Warren's bag of apples was missing. Bear tracks were all around and black hairs were on the door. The state police were notified, and when a trooper arrived all he asked was if we wanted fingerprints.—Regional Forester Patrick M. Donahue, Drums.

Woodsmen to the Rescue

VENANGO COUNTY—Timber cutters Larry Eakin and Mark Exley unknowingly felled a tree that contained a nest with two young hawks. After contacting me through the region office, they then took me to the young birds. The woodsmen explained they don't cut trees with nests, that they instead wait until the young have left. It was most gratifying to find that at least some people who make their living cutting trees still find the time to accommodate wildlife.—WCO Leonard C. Hribar, Seneca.

Inspiring Writer

WYOMING COUNTY—When Montana game warden Rick Schoening called me about a suspected poacher he believed to be staying here in Tunkhannock, I certainly agreed to help. Then, during our conversation, he mentioned that he reads the column I write for the local paper. Rick said friends of his who live here send him the paper, and that my column encouraged him to start one of his own. Information and education is vital to a sound wildlife management program, and I was happy to have inspired a brother officer in this regard.—WCO William Wasserman, Tunkhannock.



Out-of-Towners

ADAMS COUNTY—The area is continuing to experience visits by wildlife not normally found here. This time a bear spent two days roaming the Gettysburg battlefield; on the second night he was struck by a vehicle just outside of town. The bear survived the encounter and continued wandering around my district. The week before that animal arrived, another bear was seen near Gaithersburg, MD, and a month before that, one was killed by a vehicle near Frederick, MD. I have no idea where they came from or where they were headed.—WCO Larry Haynes, Gettysburg.

Field Full of Fawns

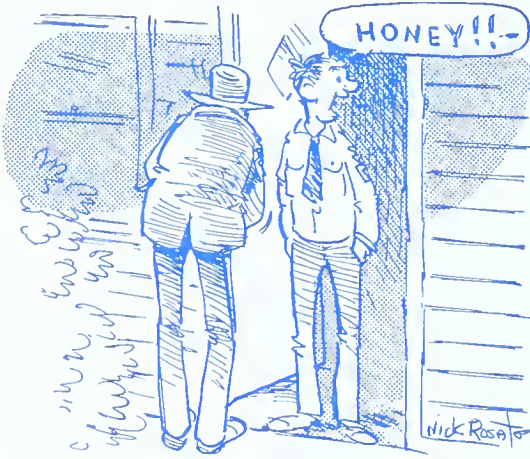
UNION COUNTY—Joe Snyder, a dairy farmer in the western part of the county, produces and tolerates a lot of wildlife on his land. Recently he told me that while making hay he found 13 fawns—nine of them in an 11-acre field.—WCO Bernie Schmader, Millmont.

Fair Play

Okay, I admit it. A couple times last May I opened my bluebird box to check on the progress of the young. Since they left, however, the adult male bird has been peering into *our* house—frequently the bathroom window. I guess turnabout is fair play. My wife, however, isn't so sure.—Forest Technician Don Stiffler, Jr., Stahlstown.

Unusual Blaze

BRADFORD COUNTY—I was called to a forest fire on SGL 12, but enroute I was told it was a mine fire. I wasn't aware of any mines in the area, but when I arrived I discovered an old charcoal factory (active in the late 1890s) was the source. Mother Nature had since covered the site with sod, but when members of an area camp burned some trash, the charcoal underneath caught fire. Unbeknownst to them, the fire burned underground for more than a week before eventually starting several grass fires on the surface. —WCO William A. Bower, Troy.



Neat Trick

CHESTER COUNTY—You know you're bound to have a bad day serving arrest warrants when your own deputy arrives at your door, locked in his own handcuffs. I shouldn't mention names, to avoid embarrassment, but how did you get here, Jimmy? —WCO William C. Ragosta, Nottingham.

Vacation Observations

My wife and I traveled to the southwestern U.S., and I'd like to share several observations. Slobs everywhere shoot at road signs, especially deer crossing signs; eastern shooters appear to be better shots than their western counterparts; crows and redtails are very adaptable—they seem to live everywhere; and armadillos don't do well on highways. —LMO Dick Belding, Waynesburg.

Golden Opportunity

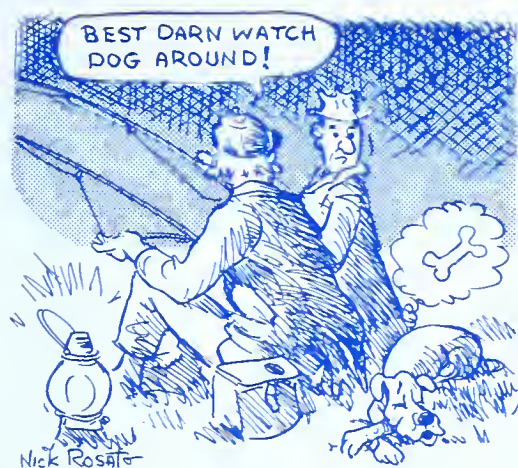
LYCOMING COUNTY—Recently, a landowner trapped a bobcat in his chicken coop, and when I was called to the scene I was surprised to find a very small bobcat kitten. The cat was caught while killing a young chicken—the landowner captured it with a fishing net. It weighed only 1½ pounds. The man's friends and neighbors said he should've killed the animal, but he said the cat was just doing what it had to do to survive. The landowner knew we were conducting a bobcat study and figured we might be interested. He was right; it's not often we can observe a cat at this age and the kitten has taught us several valuable lessons. A tip of the hat to a man who used his head instead of losing it, in a situation where many would have acted differently. —WCO Dan Marks, Montoursville.

Housing Program

WESTMORELAND COUNTY—Students from the Greensburg Salem School District recently participated in a three-day environmental education experience at Camp Soles. As part of the program, WCO Dan Jenkins and I presented our cavity nesting bird program, which included constructing 60 bluebird and 15 wood duck boxes. The students erected the boxes at the camp and on adjacent farmland. Our hats are off to these students for their interest and involvement in creating valuable nesting structures for our native wildlife. —WCO J.V. Stefko, Greensburg.

Committed to Youth

LAWRENCE COUNTY—A special "thank you" goes out to the county's Coachmen's Club for its assistance at the Youth Field Day in Franklin, and for hosting Ducks Unlimited's Greenwing Day. The club members' continued interest in our younger sportsmen demonstrates their commitment to conservation education. Well done, fellows. —WCO Gene W. Beaumont, New Castle.



Not So Keen

NORTHUMBERLAND COUNTY—One night while I was patrolling along a stream, looking for litter violations, several fishermen and a dog showed up. I got within about 10 yards, so close I could hear their conversations. One complained to the other about bringing the dog along, but the dog owner defended the decision by saying the dog would alert them if anyone came snooping around. He went on to explain how a dog's senses are much keener than man's. After about 40 uneventful minutes I departed, completely undetected.—WCO James K. Kazakavage, Sunbury.

Drought Changes Habits

This year's drought was almost as severe as the one in 1988, but it started earlier in the year. A lot of people are asking where the deer are. They're not using the hay fields very much this year because no grass grew after the fields were cut. While such fields may be suitable for mule deer and antelope, they're not much for whitetails.—LMO R.H. Muir, Kittanning.

Sure He Does

BUTLER COUNTY—A lot of people get their drinking water from a spring on SGL 164, but the flow has been slow because of the drought. I talked to an individual there one day who asked if I had a spigot on the hill I could turn to fill jugs more quickly.—WCO Dale Hockenberry, East Butler.

Ounce of Prevention

CARBON COUNTY—Last spring Deputy Rich Kott and I investigated an incident in which a "hunter," hearing a gobbler, illegally stalked the bird and then shot when he saw movement. As he retrieved his prize, however, he realized he had a problem: No one had ever told him how to remove a turkey from a wire pen or how to deal with an irate property owner, who'd watched the entire incident. If the individual had visited the landowner prior to hunting on his property—as he should have—he would have known the man kept turkeys and he also would've known where the Safety Zones were. And if, as required by law, the violator had identified a bearded turkey, he no doubt would have seen the wire pen and large white brooder house, too.—WCO Richard E. Karper, Weatherly.



Bear from the Skies?

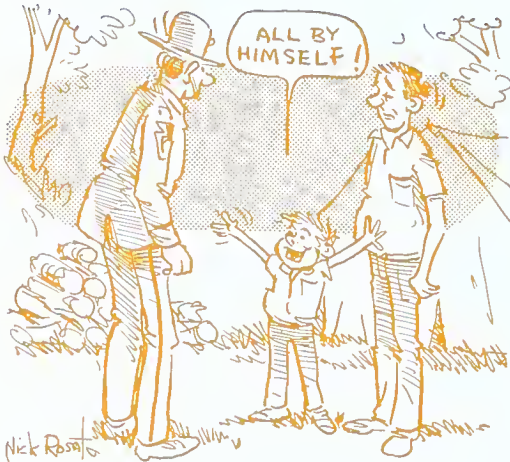
WAYNE COUNTY—Despite what a Honesdale man may believe, we do not drop bears from aircraft. One evening the man heard a noise behind him and turned around just in time to see a bear about 30 feet above him, in midair. When the man gathered up the courage to investigate, he discovered that while black bears are excellent climbers, they don't always pick the strongest trees. We found the limb the bear rode to the ground; he'd already left to seek a better tree.—WCO Donald R. Schauer, Honesdale.

A Comeback

WAYNE COUNTY—I've been seeing quite a few ospreys here recently, and other people, likewise, have reported many sightings. Threatened by pesticides in the 1960s and '70s, ospreys were nearly exterminated in the state. But through the Commission's osprey restoration project and, other conservation programs, the osprey population is on the rise.—WCO John C. Shutkufski, Damascus.

Paying the Freight

A recent game lands tour produced many comments about the beauty of the outdoors and the wildlife they sustain. The group saw plenty of animal sign, and even a few animals. The visitors learned many interesting things that day, too, not the least of which was the fact that the funds used to purchase and maintain game lands are provided by hunters.—LMO James Deniker, Sandy Lake.



The Darndest Things

SCHUYLKILL COUNTY—Deputies Wes LeVan and Gary Reinoehl are still chuckling. While citing a man for camping on SGL 211 they noticed a small stack of cut wood at the campsite. When the deputies told the man it was illegal to cut wood on game lands he denied cutting it, saying the wood must have been left by someone else. At that point a young boy approached the officers and said, quite proudly, "My daddy cut all that wood."—WCO Stephen S. Hower, Tremont.

Keep Your Head

COLUMBIA COUNTY—During spring gobbler season I investigated two shooting incidents, both involving a person shooting and wounding another member of his family. With that in mind, as a new hunting season gets underway, I strongly urge all hunters to keep their wits about them. No game animal, trophy or not, is worth risking another human being. Assume every noise you hear and every movement you see is another person. Positively identify your target *before* you pull the trigger. If there's any doubt, don't shoot.—WCO George A. Wilcox, Millville.

Eliminating A Nuisance

MERCER COUNTY—The number of nuisance wildlife calls we receive is rising, and I believe it's time we address the issue as a people problem, not a wildlife one. Educating the public to prevent nuisance animal cases through effective deterrents will help folks peacefully coexist with wildlife: proper storage of garbage, pet foods and other attractants is a start. There's no way a WCO can respond to every nuisance animal complaint; wildlife pest control agents are the better choice to handle these problems.—WCO Donald G. Chaybin, Greenville.

Urban Wildlife

SOMERSET COUNTY—Denise Shank was leaving her mother's house when she saw a large bird fly over the two-story garage. Her boyfriend yelled, "Turkey, turkey!" Seconds later they heard a large thud, and when Denise stepped onto the porch she saw thrashing turkey legs hanging over the roof. Her boyfriend climbed out a window and found a male wild turkey, weighing about 15 pounds. The turkey died, though, from hitting the house, which is—of all places—right on Main Street in Somerset.—WCO Daniel Jenkins, Somerset.



Photo by Clyde Hare

A PAIR of peregrine falcons chose the Gulf Tower in downtown Pittsburgh to build their nest. Four young were born; two died from mid-air collisions with man-made objects, and one disappeared from the nest. Wildlife biologist Dan Brauning said young raptors are at high risk in their first year.

Banner Year for Raptors

PENNSYLVANIA bald eagles, ospreys and peregrine falcons have recorded their most successful nesting season in more than 40 years.

This year there were more nests with more young than in any other since before 1950, lending great hope for a dramatic recovery of these large raptors by the turn of the century.

"Our endangered raptors have had a good year," said wildlife biologist Dan Brauning. "Up to 12 young bald eagles were produced this year."

Seven peregrine falcon territories were located in the state, six in the lower Delaware Valley and one in downtown Pittsburgh.

Thirteen active osprey nests were found in the commonwealth, more than were ever documented in one year in the state's history. Included was the remarkable discovery of a nest in Somers-

set County, the first nesting osprey in western Pennsylvania since 1910.

Five young bald eagles fledged from two Crawford County nest sites this year. A Butler County nest produced three young. Two bald eagles fledged from a nest on Haldeman Island in Dauphin County. Nests in Tioga and York counties each produced one eagle.

A pair of bald eagles established



a nest near the Delaware Water Gap in New Jersey, supporting long-term speculation that nesting activity along the upper Delaware River may have resulted from hacking efforts in the Poconos.

Pennsylvania began a bald eagle reintroduction program in 1983, and from then through 1989 Game Commission personnel brought 91 eaglets to Pennsylvania from the Churchill River Valley of Saskatchewan.

Removed from Canadian nests at about seven weeks of age, the young eaglets spent a month and a half in artificial nests located atop 30-foot high hacking towers in the Delaware and Susquehanna River valleys. All but three of the 91 Churchill River Valley eaglets survived, were banded and released into the wild.

Pennsylvania's eagle reintroduction program received financial support from the Richard King Mellon Foundation, federal endangered species funding and the Game Commission's Working Together for Wildlife program.

The osprey or "fish hawk" was featured on the 1982 Working Together for Wildlife patch and decal. Reproduction appears to be very good this year with seven of the state's nest sites producing multiple young.

Also, 14 young osprey were removed from Chesapeake Bay nests this year and relocated to the U.S. Army Corps of Engineers' Tioga-Hammond Dam in Tioga County for hacking.

Pennsylvania's peregrine falcons have demonstrated a liking for nesting sites located on tall buildings and high bridges. The nesting pair in Pittsburgh chose the Gulf Tower building for their home. First sighted in 1990, the pair nested on the 37th floor of the building early this spring. Four eggs were laid by April 2 in a nest box located on a narrow ledge. The eggs hatched May 3.

Brauning related that the nest was located just outside an unoccupied section of the building. Windows in the immediate area were blocked off to provide the adult birds and their young with additional privacy.

Brauning attached U.S. Fish & Wildlife Service identification leg bands to the young prior to their fledging. Records show that the female of the adult pair had been hacked from a Virginia cliff site in 1989.

The Western Pennsylvania Conservancy and the Allegheny Conference on Community Development joined the Game Commission in the successful Pittsburgh peregrine project.

Records show that peregrine nesting in southeastern Pennsylvania has primarily taken place on bridges spanning the Delaware and Schuylkill rivers.

Eight resident pairs of peregrines have been identified on the lower Delaware in New Jersey and Pennsylvania. Peregrines have set up housekeeping in the Philadelphia area on the Pennsylvania-New Jersey Turnpike Bridge, the Tacony-Palmyra Bridge, the Girard Point Bridge, and the Walt Whitman span. The Commodore Barry Bridge at Chester is home to an adult pair.

Brauning said in most cases peregrines nest on sections of a bridge span below the roadway deck. Common locations are in openings in box beam supports. Nesting boxes have been placed in strategic locations on many of the bridges to promote successful hatches.

Young peregrines hatched from bridge nest sites face many hazards, including encounters with bridge traffic, disease and disturbance. Brauning said most bridge authorities have altered and, in some cases, rescheduled planned maintenance programs in an effort to avoid disturbing nesting peregrines.

Repeated observations of a bird on a cliff in Bucks County that had historically been used by peregrines raise the hope that a natural site may be reoccupied for the first time in Pennsylvania since the decline of the species began in the 1950s.

"There are strong suggestions that peregrines are nesting somewhere in downtown Philadelphia," said Brauning. "We haven't yet been able to establish that as a fact."

Tangible Reminders

THAT'S A beautiful shelf Dad built for you," my sister-in-law said as we walked into the living room. Dad is a retired carpenter. "What are you going to put up there . . . collectors plates, crockery?"

"Deer antlers," I replied.

"No!" she cried "Tell me it's not true."

But she knew it was. After many years, she's well acquainted with my "outdoorsy" ideas in decorating. Indeed, my husband and I had asked Dad to build the shelf specifically for the antlers. I thought it would look pretty good.

"Now, don't take this wrong," my sister-in-law said. "I'm only asking because I don't understand. Why would you want to display deer horns?" She laughed a little self-consciously. She married into a family of avid hunters, though she isn't one herself. Some of the things the rest of us do have always seemed strange to her. "Why would anyone want to save antlers and hang them on the wall?" Especially the living room wall, I'm sure she meant. "Can you explain that to me?"

I had to think about that one. Why indeed do we keep deer antlers? After all, the idea is rather gruesome and a little prehistoric: bones of dead animals lying around the cave. Keeping antlers is something that's always been done in our house, as natural a part of the hunt as wrapping the meat and cleaning the guns. But exactly why do we do it? It's not as if any of the antlers are trophy size. Just what do the horns on the wall mean?

"They're symbols," I responded. "No more and no less. We keep them for what they represent. The antlers are reminders, memory joggers, souvenirs. Each set tells a story, again and again, to the hunter who took the animal that wore it."

I picked up one of the racks that I planned to place on the shelf. It belonged to a fine 6-point I had shot with a rifle, my best buck with a gun so far.



DEER ANTLERS and other trophies serve as mementoes—each one tells a story again and again to the hunter who harvested the animal. Keeping antlers is as natural a part of hunting as cleaning guns, Steiner says.

Looking at the rack, I was flooded with memories.

"Take this one, for instance. Whenever I see it, or touch it, the day of the hunt comes back. I can feel the morning cold, and the way the low sunlight made long shadows on the ground. I see the moving shadow that was the buck behind me, I feel the tension, my heart pounding, my hands struggling to stay steady. I remember looking through the scope, seeing the sleekness of the deer's coat, the way his white breath hung in the bitter air, the crosshairs on his neck. He fell instantly with

Another View...

by Linda Steiner

the shot, and I can still hear my husband's loud 'Whoop!'—he had pushed the buck to me—when he realized I had gotten the deer.”

“Now, this set of spikes,” I said, “makes me think of the steep hills of Lycoming County and a rainy bow season. I remember standing against a tree just after sunup and seeing the little buck feeding on acorns, getting closer and closer. I can see the way the deer jumped and kicked when I shot, and how we tracked him around the mountainside, through tangles of laurel, until we found him in the next valley. I was so afraid it would storm again and wash the blood trail away. But it didn’t.

“You see, every one of these racks tells its own tale, the circumstances of the hunt, where and when, the weather, companions, how the deer looked and acted, my own feelings and reactions. They can even bring back an entire season. The spike also reminds me of how miserably wet the tent was, and how my husband and I both came down with the flu. We took turns spending whole days bundled up in the sleeping bag, with the aspirin and tissues, hoping the other wouldn’t need us to help trail.

“You know that I have lots of photos of our hunts, but they’re just not the same as having the antlers. Maybe it’s because we see so many pictures, in magazines, on TV, that they seem unreal. After a while you begin to wonder, ‘Did it happen? Was I truly there?’ But these,” I said, holding out the antlers, “these you know are real. You can see and touch them. They have substance, reality. They’re a hard, cold—or at least cool—to the touch reminder.”

“Besides, every set of antlers is unique, just as the animal was. You can read something about the deer’s life by looking at them. This rack,” I said, “has a broken point. It looks like the break happened after the antler had hardened, perhaps in a fight with another buck. I wonder how big the other deer was and just how the point snapped off. Antlers are so hard that it must have taken tremendous force.

“Even without the stories behind

them, antlers are fascinating. There are long, white spikes, and short tined, dark racks. I can feel the nubby part down by the antler base or the vicious sharpness of the points.

“Some people think antlers are kept so hunters can brag about how great they are. This just isn’t the case, at least with the hunters I know. Of course it’s a good feeling if the antlers on the wall resulted from something particularly right and skillful you did as a hunter, the well-executed stalk, an excellent shot. There’s nothing wrong with feeling a little well-earned pride.

“Hunters don’t keep antlers to show any sort of triumph over the deer. I’m never proud that I caused the death of an animal. But everything dies, and killing has always been a natural part of the hunt. Once the meat is gone, if the deer was a buck, the antlers are all that remain. They’re a testament to what once was, for the animal and for me.

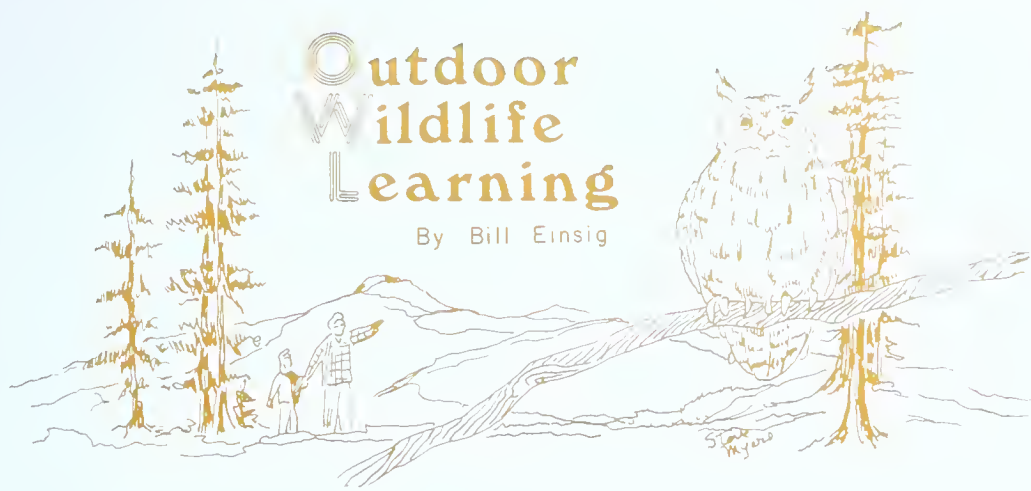
“Sometimes I think about a friend of ours. At one time, his father had exclusive permission to hunt a piece of ground in southeastern Pennsylvania. He took some tremendous bucks, but his motto was, ‘You can’t eat the horns,’ and he didn’t keep any. The father is now an old man and can no longer hunt. Without antlers, the memories are hard to come by. Our friend told us this because he was scrounging for racks for his dad, so he could look at them and be reminded of his past hunts. Of course they wouldn’t be the same racks, but they’d be something.

“Each set of antlers is very personal to the hunter who shot it. In fact, my husband told me, ‘If the house catches fire, don’t worry about anything else, just grab my deer antlers on the way out. Everything else I can replace, but those are one-of-a-kind.’”

My sister-in-law chuckled at that. I suppose the picture rang true. She could see me darting out the door with an armload of deer horns, the flames licking at my back. I laughed too. Then I agreed that the shelf would look nice with country crockery on it, but some things are just more important.

Outdoor Wildlife Learning

By Bill Einsig



Bird Feeding Tips

Dear Mr. Owl,

Last winter we put a bird feeder in our yard and spent many hours watching the many different types of birds. We continued feeding through spring and summer, but now wonder if we were doing the right thing. Can birds, rabbits, chipmunks and other wild animals become too dependent on our food? What might happen if we stop feeding? S.Y., Coaldale

Dear S.Y.,

You've discovered the joy and excitement of sharing your yard with wild neighbors that you might otherwise not see. Your feeding station can provide many hours of enjoyment and wildlife study without any harm to the visiting animals.

Many bird feeders are stocked during the winter and then left empty for the summer, when birds have little difficulty finding sufficient food. The cost of providing an entire year's supply of food can be significant. However, you do no harm to your visitors by feeding them during the warmer months if you want to entice them to your yard where you can see them regularly. If you stop feeding them during the warmer seasons, the birds will find other food sources with little problem.

It is during the cold, winter months, especially when snow covers food supplies, that birds and other animals have difficulty finding food. At this time your visitors will be more dependent upon your feeders and may not be able to locate other adequate food sources if you stop

providing for them. So, don't stop your feeding during the winter and early spring.

It is true everything in nature seems to be connected to everything else. Each time we do one thing, an unexpected result crops up to surprise us. That is also true of feeding birds.

Feeding stations tend to concentrate animals in a smaller area than normal. Such crowding can make it easier for certain diseases to pass through a flock, through the use of common feeders, baths or water supplies. Sharp-shinned hawks, neighborhood cats and other predators could find easy hunting around your feeder.

In addition, you might decide that far too many house sparrows and European starlings are taking advantage of your generosity. It can be frustrating to watch these and other pests gobble most of the food you intended for cardinals, woodpeckers, titmice and chickadees.

Bird feeders are also frequently messy. The tidy little feeding tray on the railing of a wooden deck might be a convenient birdwatching attraction during the winter but, in warm weather, when you want to spend more time on that deck, droppings and scattered food might not mix well with grilled burgers and young children crawling on hands and knees. The placement of feeders, the kind of food you offer, and the estimated cost of seed should be considered carefully.

Perhaps most important to success in

attracting birds to your yard is not the food you provide, but the landscaping. Birds look for appropriate trees, shrubs and other types of plantings that provide food and protective cover. A carefully landscaped backyard habitat will attract and feed many more birds than will feeding alone.

You can learn much more about birds around your home and feeder with *Birds of Pennsylvania* by Jim and Lillian Wakely. It's available from the PGC at a cost of \$10. In the meantime, enjoy your birds.

Dear Mr. Owl,

I'd like to know more about a deer's scent glands. Where are they and what do they do? R.V., Saegertown

Dear R.V.,

Whitetails have four sets of external glands. Each produces scents which, among other things, help to identify individual deer. These glands are one form of communication between deer and give each animal information about other deer.

The preorbital glands are located in the corner of each eye. In the whitetail, it's generally thought these slit-like glands serve only as tear ducts; however, in the closely related black-tailed deer, scents from the preorbitals are used to mark vegetation in the deer's territory.

Interdigital glands are located on the front of each foot, just above the hairline, between the hooves. These depressions contain an oily, or waxy, fluid scent material that marks the deer's trail as it walks. With their noses to the ground, whitetails are able to recognize and follow individual deer.

There are two sets of scent glands on the hind legs. One is the metatarsal gland found on the outer surface of the foot above the dew claw. While some question still surrounds the actual function of this gland in whitetails, biologists believe it serves as an alarm signal in the related blacktail. Some also suggest the metatarsal might leave scent clues in areas where the animal has lain.

The other glands on the hind leg are the tarsal glands. These are located on the inside of what is actually the deer's ankle, or the hocks. Glands in the skin under this 3-inch patch of longer hair secrete scent that is unique to each deer and serves to identify it as an individual. The tarsal gland seems to say, "My name is . . ."

The scent of the tarsal gland is aug-

mented by another powerful scent fluid—urine. Deer urinate on the tarsal glands and rub them together when they are frightened or when they are challenged. The urine increases the odor of one's identity and probably communicates information we don't fully understand. Deer smell the hocks of other deer they meet as a way of learning who they are, much as dogs smell other dogs.

If you have a question about Pennsylvania's wild heritage, send it to Mr. OWL, Game News, Pennsylvania Game Commission, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

ATTENTION TEACHERS! The Wild Resource Conservation Fund has produced a new poster you'll want for your room or office. The 20 x 28 inch full color poster shows an adult male yellow-shafted flicker at the entrance to its nest cavity with one of its nestlings. The other side of the poster features a wealth of information on cavity nesters. This colorful resource is great for teaching about the needs of nongame wildlife. The WRCF will send a poster for just a contribution of at least \$5. Contact WRCF, P.O. Box 1467, Room 101, 3rd & Reily Streets, Harrisburg 17120.



**Wild Resource Conservation Fund
1991 Poster Available**

OCTOBER is unquestionably my favorite month. The cool, crisp, comfortable days complement every outdoor activity. A spectrum of bold vibrant colors provides a splendid backdrop to my duties as well. Frosty mornings give way to soothing warm sunshine by afternoon, allowing me to bask in each day's glory.

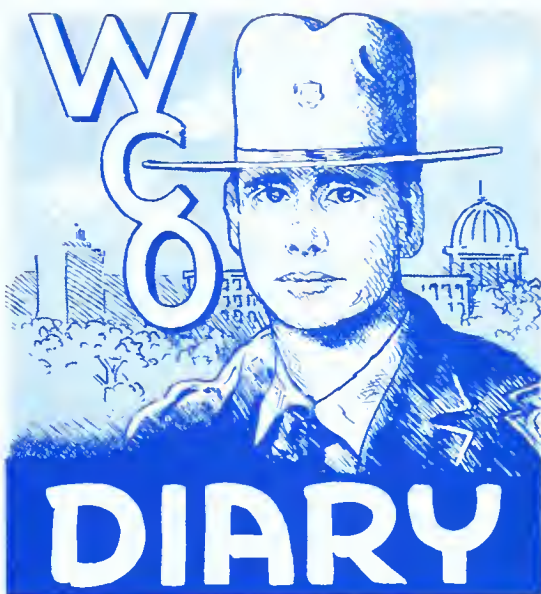
This month marks another milestone in a WCO's calendar as hunting seasons are in full swing. Long days and nights afield are now the rule and will continue through the remainder of the year. All conservation officers can relate to that numb, zombie-like feeling that comes after 16 or more hours on the job. Fortunately, a heartfelt concern for the resource and the sport of hunting drives officers to endure long and sometimes arduous working conditions. Do we mind? Heck no, we love it. Grab your gear and let's go as we share the miles and moments of the month's duties.

OCTOBER 2—A landowner in East Hanover Township called about a rather suspicious occurrence. For several months, he had been watching a dandy little 6-point, and last night he became concerned. The deer was grazing in one of his fields around dusk. Just as the young buck disappeared, two loud shots pierced the evening air. The caller even thinks he knows who did the shooting and points me in his direction. When I learn that the suspect had been cited for jack-lighting a few years earlier, my interest heightens.

A quick check of the area reveals a couple well-used tree stands in a wooded draw next to where the deer had disappeared. I can't, however, find any evidence of shots being fired from the stands or even of a dead or injured deer. The investigation soon leads Deputy Frank Kolaric and me to the suspect's door. After a few questions and a couple of "what if" suggestions, the suspect offers that we check his freezers.

While unable to unravel the mystery of the shots, we did find a prime red fox carcass that the fellow readily admitted was illegally obtained. After settling the matter on a field receipt we part company, leaving Frank and me still pondering this guy's professed innocence in the matter.

OCTOBER 6—I've been keeping a close eye on the baited area I located last month in Lower Paxton Township. With



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

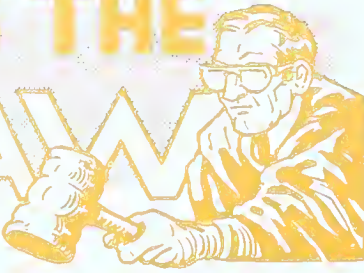
the first week of archery season behind us, the tree stand overlooking the bait has been empty on each of my visits. I'll continue to keep tabs on this spot, but I'm doubting if this fellow is a bowhunter.

As darkness sets in, Deputy Bob Schmitt and I respond to a call of shots being fired at a notorious jacklighting spot in Fishing Creek Valley. Keeping a low profile, Bob and I fan out across the vast weed field. We suspect that the shooter is on foot. We find nothing, though, and part company for the balance of the night to resume our patrol vigils.

OCTOBER 11—Although law enforcement responsibilities now occupy the bulk of my time, I still strive to stay involved with information and educational programs as well. Thus, this month I've met with a 4-H group and an FFA group, and for today I've reserved a greater block of time for such programs. I'm in the city of Harrisburg, sharing a natural history lesson with a senior citizen group. They're intrigued with learning more about our state's birds and mammals. After my presentation and loading my small array of props and mounts, it's back to my more seasonal list of things to do and people to meet.

First, I contact a fellow in the city about a dumping incident he is believed to have committed in WCO Leroy Everett's Perry County district. It seems the fellow was

IT'S THE LAW



Question

My friend and I each killed two pheasants on the opening day of the regular small game season, but he doesn't want his. Am I permitted to take them home with me?

Answer

Yes. Small game unaccompanied by the owner must be tagged or labeled showing the name and address of the owner, along with his hunting license number and signature.

target practicing on a game lands when he conveniently chose to leave a pile of cardboard boxes and targets behind. Fortunately, sifting through the debris, Leroy found an address on one of the boxes. We're in luck; the suspect confesses and settles the matter with Leroy.

Next, after a long search, I locate a chap in the east side of the city and deliver his license revocation notice. Officers frequently, serve revocation notices to game law offenders. Typically the notices are sent via certified mail, but many are undeliverable. Usually the addressee has moved once, or perhaps several times, since the date of the violation. A lot of leg work can be involved in trying to find these folks and, thus, ensure that they receive the notices.

Finally, I need to sort out a quandary that has developed with some bowhunters in Fishing Creek Valley. The group is alleging that they are being harassed by the adjoining landowner to a property that they hunt. The fellows claim the landowner is deliberately parading about their evening stands, purposely creating noise and disturbance.

After I interview the parties involved, plus a few other adjoining landowners, the plot thickens. It seems the whole incident is rooted in a recent misunder-

standing. One of the hunters had fatally wounded a large doe several days earlier, and the deer's trail led the group to this fellow's property. Upon being asked for permission to recover the deer presumed lying somewhere on his property, the landowner began to express his dissatisfaction with the group and to the concept of bowhunting. His complaints continued and the hunters never were permitted to retrieve the deer.

This situation may be compared to domestic disputes regularly encountered by police officers. While no discernable violation exists, an officer tries his or her best to calm the troubled waters to avoid any real violence or injury. This situation is handled the same way, as I offer several suggestions to minimize any further conflicts.

OCTOBER 13—The deputies have received several complaints from residents in East and West Hanover townships about someone spotlighting during the early morning hours on weekdays. This is, perhaps, one of the more preferred times for poaching. With flexibility in my scheduling, I make note to check into the matter. For the past several days I head out around 3 a.m. to cruise the area until sunrise. Thus far, all has been quiet.

After catching a few more winks of sleep, I meet with fellow officer Scott Bills, as we journey to SGL182 near Kutztown for our semiannual qualification shoot. As I described in a previous column, these regular mandatory shoots are a necessary part of a WCO's ongoing training regime.

Upon my return to the district, I complete the night with more patrol work in West Hanover Township.

OCTOBER 15—A chilling rain greets me as I turn the ignition key to my 4WD patrol vehicle. The steady precipitation is beginning to take its toll on the tapestry of autumn foliage, and the leaves drift silently earthward, pasting themselves to my windshield. Hardly a suitable epitaph for their once radiant glory.

I'm off to meet with the agriculture staff at the Milton S. Hershey School and Trust Foundation to explain the new extended deer hunting season, a season designed to relieve deer damage problems on farms. With almost 10,000 acres under their control, the foundation conducts an intensive agricultural operation that has a

history of deer damage. I've been working with the staff in an effort to alleviate some of their deer depredation problems and today I leave them with this new tool to consider.

The leaden sky continues to unleash its chilling torrents as I leave, off on what will become one of my most memorable investigations. As I pull into a secluded parking spot just short of the Lebanon County line I'm treated to a "Kodachrome" horizon. The storm clouds suddenly part and a double rainbow appears on the eastern horizon. What a fantastic way to end the evening and begin an investigation.

My spirits bubble as I trek into the muddy cornfield. A fellow has tipped me to what he suspects as pre-season goose hunting in these sprawling fields. I'm looking for some hard evidence to substantiate his claims. Just some spent shotshells or a couple of goose feathers would be enough impetus to further my investigation. What I find, however, is almost too good to be true.

As I slog through the mud amid the tassled rows, a black pickup turns off the hard road and enters the field. I'm amazed when it grinds to a halt within scant yards of my seemingly prominent figure squatting motionless in the mud. Two camo-clad fellows jump out and quickly trot along the rows, shotguns up across their shoulders. Unbelievably, in their haste, they didn't see me. I give the truck a quick once-over and jot down the license number.

Soon I can hear the pair chattering in the cornfield along the far fencerow. I quietly follow a nearby row and soon find myself stationed unnoticed *and in the same row as they are*.

The two then begin to honk and call as the first wave of geese appears on the distant horizon. These fellows have strategically located themselves in a flyway to intercept the almost 1,000 geese that nightly depart the Hershey area. I'm as excited as they are when the opening volley of shots sends the birds furiously pumping for more altitude. The pair continues to scamper back and forth in the field, selecting the most likely spot to intercept the next flight. My pen dashes across my notepad, as I hastily, with equal earnest, take notes of the incident.

Just when I think the two have totally incriminated themselves, and I ready myself to make a most memorable appear-

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; Northeast, 1-800-228-0789; and Southeast, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

ance, I hear the two conversing way back by their truck. What the . . .? How'd they get by me? Suddenly, I find myself sprinting in the ankle-deep mud toward their pickup. I'm too late. Taillights bobbing along the corn rows back to the road is all that I see. I can't believe that I just blew one of the most memorable moments of my career, finally being in the right place at the right time. So much for my surprise appearance.

A radio call to the regional office puts me back in business, though, with the registration information from the truck license plate. Within minutes I'm at the suspect's door, and a most entangled game of cat and mouse begins. While the shooters didn't bring any geese to bag on this particular evening, I eventually persuade the pair into full confessions. They not only "spilled the beans" on themselves, but also told of a guest from the Somerset area who had joined them on several of the almost dozen previous out-of-season hunts. A tally of their illegal kills was taken, and the birds were removed from the freezer as evidence. This is the type of violation conservation officers savor the most—pinching the hardcore game thieves.

OCTOBER 19—I'm dispatched early in the day to retrieve an injured bird of prey at the Harrisburg Country Club. Officers are often called to handle injured wildlife. Fortunately, I have several dedicated and highly skilled licensed wildlife rehabilitators in my district. They provide care and

Fluorescent orange safety alert bands developed for turkey hunters are available from the Game Commission. They are \$3 each, delivered. Order from the Game Commission, Department AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797.

attention far above what I'm capable of giving.

This bird was special. Upon my arrival the grounds crew at the club guided me to a large osprey standing defensively in the tall grass. As the crew kept the bird's attention, I crept around and was able to net the hapless raptor from behind. A quick examination revealed a shotgun wound to the breast area; my blood pressure began to rise. The club is adjacent to the Susquehanna River, and I suspect some "slob" peppered this bird during the goose season opener. Ospreys are classified as endangered in Pennsylvania. I was outraged by this thoughtless act.

The bird's wound proved to be beyond repair, and much to the rehabilitator's dismay, the osprey died. Later investigations proved fruitless, and the person responsible for this incident was never found.

Later in the evening, I begin a full night's agenda with Deputy Larry McCarter and Fish Commission Deputy Carl Books as my partners. The first stop was back in the Hershey area to finalize all the paperwork involved with the out-of-season goose shooters.

From there we swing back into Swatara Township in response to an anonymous call about a fellow keeping a red fox in a pen on his back steps. Sure enough, we find the critter confined in a small wire enclosure. With the rabies epidemic upon us, someone was understandably concerned for public safety, particularly the children.

Our knock at the front door brings a young gentleman to answer. As we inquire about the fox, he becomes indignant. It seems he supposedly found the critter injured on the roadway and decided to try his hand at rehabilitation. I was less than impressed with the care he was providing. When I learned that a local veterinarian, a pet store, and a relative all advised the man to call the Game Commission, I lost my sympathy. The fellow was promptly cited and later found guilty for unlawfully taking and possessing the fox.

Fortunately, the rabies test was negative, and I breathed a sigh of relief for this fellow, his pregnant wife, and son—who had each handled the critter on a regular basis. It has been said countless times before; leave wildlife in the wild.

Next we head over to Lower Paxton Township to check on a spotlighting complaint. A lady there has been bothered by several cars passing by and deliberately shining their extremely bright beams on her house. She finally lost patience and began jotting down license numbers of the inconsiderate offenders.

We track one of the suspects to his home and find the vehicle she described, with a spotlight lying on the front seat. No one answers our knock, so we make a note to stop back later and have a chat with these thoughtless folks.

On the road again, this time to Highspire where a trailer park resident suspects one of his neighbors has been killing geese at night in the park's large lake. Plenty of people and a bountiful wildlife population is a mix that makes this job most challenging—I'm never at a loss for something to do.

Finally, after we're clear of all the calls, complaints and information, Carl and I complete the night with a couple hours of patrol near Fort Indiantown Gap. Frost begins to form across the fields as we call it a night around 3 a.m.

OCTOBER 23—York County WCO Greg Houghton joins me on the Susquehanna River for the opening day of duck season. Launching our boat several times today, braving torrential rains, we enjoy high water and are able to patrol the entire length of the district. The hunting pressure is light, and only one minor violation is encountered.

I thought the heavy rains made the day just "ducky." Greg, however, took exception to being soaked from head to toe. As he sloshed back to his patrol vehicle, he mumbled something about checking the weather forecast before ever again joining me on such river adventures.

OCTOBER 24—This time of year seems to bring something needing my attention each and every day. Deputies John Harbold and Terry Hocker have been trying to catch some fellows in West Hanover Township for bowhunting deer in a baited area. This evening they call and request my assistance. A bit of persis-

tence pays off, and Terry and John are able to nab one fellow in a tree within 12 paces of a pressed molasses block. His companion was more fortunate, as the deputies found him wandering about an adjoining area, pleading ignorance to the bait.

OCTOBER 25—Another pressing day about the district finds me ridding the roadways of dead deer, followed by another investigation in an exclusive Lower Paxton Township development. A lady there was recently startled by a fellow shooting squirrels next to her house. She took further exception to the fellow's arrogance when she asked him to leave. Without a doubt, Safety Zone violations such as this give the sport of hunting its worst black eye in the minds of the non-hunting public. A mere unthinking few can easily spoil the best intentions of the most conscientious sportsmen and women.

Another troubling complaint takes me over the mountain into Fishing Creek Valley. A sincere young sportsman takes me on a long hike along the side of the Blue Mountain, to show me a dandy 8-point he had found early Sunday morning. The deer fell victim to a poorly placed rifle wound. As the kill was quite fresh, his find substantiates reports I'd been getting about preseason deer hunting in this area. Without help from concerned sportsmen and allied conservationists, this type of violation is one of the most difficult to solve. We'll try our best.

Moving on, I need to spruce up a bit as I'm doing a television interview with a news team from Channel 21 in Harrisburg. The crew is going to accompany me as I release pheasants around the district this afternoon. A comprehensive question and answer segment follows, touching on a wide profile of wildlife related issues and agency management policies.

OCTOBER 27—Historically, the opening day of the regular small game season was one of the busiest days for conservation officers. Calls, complaints and incidents sometimes piled to monstrous proportions. With the decline in small game habitat and the corresponding drop in animal populations, hunting pressure in this season is now considered light in many areas. The day still provides for a full and varied patrol schedule, and as usual, I'm not a loss for things to do.



OIL JUNKIES?

Face it.

We are a nation of fossil fuel junkies. And we are pushing this energy narcotic on our children.

Unless we break our oil habit, we doom the next generation to a lifetime of fossil-fuel dependency. The symptoms are easy to spot. An insatiable craving for gasoline. Disregard for the environment. An obsession with maintaining unstable oil supplies at any cost.

But we can break this addiction without painful withdrawal. By driving less. Demanding more fuel-efficient cars. Investing in energy technologies that fuel our economy but keep the environment clean.

It's the only way to keep today's children from becoming tomorrow's oil junkies.



Working for the Future of Tomorrow
NATIONAL WILDLIFE FEDERATION

OCTOBER 31—Settling fines, filing citations and stocking more pheasants occupies most of the day. Just as I'm unloading empty pheasant crates and storing my trailer, I receive an urgent call on the radio. A hunting accident victim is being flown by helicopter to the Hershey Medical Center emergency room. The mere mention of the words "hunting accident" makes a WCO cringe. The thoughts and concerns for those injured, coupled with the lengthy and detailed investigations that often ensue, cause anxiety in the most seasoned veterans.

Calling the regional office for more details, I learn that the incident took place in Mifflin County and that fellow officer Tim Marks is requesting that I interview the victim. Tim relates that the fellow is an elderly gentleman who was shot in mistake for a turkey by a hunting companion. Upon my arrival, I learn that the old fellow's injuries were not as severe as earlier thought, and that he has been already discharged.

If you thought this month has you tired and out of breath, just wait. Join me next time as we try to keep pace with the swelling activities and the opening of the "big one"—buck season.

IF THE TRUTH be known, I had rather hunt by myself than with others. I am not an outgoing soul. I tend to be more interested in pursuing the hunt, communing in my own fashion with nature and the land, than in being sociable. There are a few people, however, with whom I genuinely like to hunt. One is Carl. Tall, broad-shouldered, athletic, clear of vision, he is twice the wingshot I am; although on some rare days I wipe his eye, which seems to please him almost as much as it does me. Carl is companionable, courteous, and despite being so efficient with the gun, not in any way a game hog. He works for the state game commission and lives in the farming country east of the capital. He is solidly Pennsylvania Dutch—says “mallart” instead of mallard, “haunting” instead of hunting, and does other intriguing Teutonic things with his syllables.

In a way it is vexing to hunt around Carl's home, because it is hard to find places to actually hunt: Houses dot the landscape, roads stripe it, suburbs grope inexorably into it. The Lebanon County soil is fertile, and the broad fields grow surpluses, between the expanding urban tissue, of all crops except wildlife. Every square foot not paved or built upon (or so it seems) is kept in production. The wet weedy draw is filled and plowed. The fencerow is erased by the bulldozer, so that the massive four-wheel-drive tractor can turn a furrow a mile long. Herbicides scrub out the foxtails, pigweed, and dock that used to run riot beneath the corn plants: Now the ground there is bare, and after the crop is cut, untenable for pheasants. Small wonder that most hunters have ended up, of a Saturday, watching football on television or listlessly navigating the wildernesses of shopping malls.

Carl, however, in his sturdy, pragmatic manner, keeps ferreting out good places to hunt. It was a warmish day in November, the sun weak behind thin clouds, when we tried the weedy margins of a limestone quarry.

We were 30 yards apart. Carl was following along behind Seneca, his female chocolate Lab. Seneca had just met my springer spaniel, Jenny, the evening before, at Carl's house. Seneca had proven a tolerant host who, after observing the convention of growling at the interloper, relaxed and even let Jenny eat food right out of her own dish. Now the dogs were hunting each for her own master, the stocky Labrador keeping close to Carl, the piebald spaniel—a leaner, more lithe beast—whisking through the ground cover before me.

Neither Jenny nor Seneca had indicated game. The afternoon was somnolent. Traffic hummed from an unseen road. In the distance, in an active part of the quarry, machines banged and whined. The tall grass around the spoil piles waved in the gentle wind. I found myself thinking, looking at a pile of rotten boards and a rose tangle and an elderberry riot, what a welcome bit of confusion in all this carefully groomed land.



Cut-cut-cut-crawk-rawk-rawk-rawk-rawk!—the pheasant seemed to split the landscape between us. The world became vivid, time expanded and slowed down, and I felt my limbs tingle and my chest fill as the bird rose. The cockbird had gotten up closer to Carl but was heading toward me: In the periphery of my vision I saw Carl's arms shift slightly and the buttstock of his shotgun tip toward his shoulder, then stop. The dogs, faces upraised, were treading lightly in the direction of the rising pheasant. The bird's wings made a clean cuffing sound. He leveled off in his flight. Resolutely he stared ahead,

his vision fixed on some point in the countryside spread all around. His tail was improbably, tantalizingly long. I ignored it. I concentrated on the head, with the stop-sign red cheek patches, swung the muzzle through from behind, and shot.

I could hear Carl calling Seneca off as Jenny raced toward where the pheasant would land. He hit in a patch of thin weeds, his wings beating feebly. Jenny reached him. She jumped right on top of him, straddling him with her forepaws, lowered her head and lifted him up. The pheasant seemed almost as big as she was. His colors were intensely bright: The copper breast, the turquoise back, and the purple-blackhead with the scarlet cheek patches. She brought him to me, breasting the waving grass.

A wild pheasant is an admirable bird. From the moment he pips the shell, he must evade predators of all sorts: weasels and snakes, foxes and housecats, and of course the avian reivers. If he makes it to adulthood, he has necessarily become astute and suspicious. A wild rooster knows his territory intimately, and it is difficult to catch him off guard. He can hide in a clump of grass that seems too scanty to shield a mouse, let alone a gaudy bird with a 20-inch tail. He would rather run than fly (a tendency that makes him especially tough for a pointing dog to handle). A friend told me about sitting in his car eating lunch and watching a ringneck run across a bare field into a small patch of greenbriar. My friend focused binoculars on the patch, but could not pick out the bird. He was getting ready to go over and flush the pheasant when another hunter entered the field. The man went straight to the briar patch and kicked through it. Nothing. After the hunter left, my friend investigated. He fully expected to find a woodchuck burrow (pheasants will sometimes duck into these) but there was none. Scrutinizing the cover all around, my friend noticed a furrow a couple of inches deep leading away from the briars. Apparently, the pheasant had clapped his feathers against his body, flattened himself to the ground, and scuttled away down the trench.

At one time I wondered if I would ever kill a wild pheasant. Bob was my hunting partner then, 30 years my senior, short, stocky, artfully roughhewn, a deadly wingshot, dispensing advice and sharing his coverts with me, a mentor to my hunting. And he knew how to hunt pheasants. He had written a book about it (which contains his story of the trench-running cock). The inscription in my copy, dated August 9, 1975, says: "With all my best to Chuck Fergus, who's never killed a pheasant in his life . . . but what the hell, there's plenty of time and lots of roosters. Hang in there, kid."

And there *were* lots of roosters. Although even then something was happening to the pheasant population in the farmland around Harrisburg, where Bob and I worked.

Opening day of pheasant season—of "General Small Game Season," the license brochure said, but all everybody really cared about was pheasants—was a true spectacle. Shooting on that particular day was not permitted until 9 a.m., and before that time fluorescent orange washed all over the farms and brushlands as men and women stood looking at their watches, looking at one another, looking at the weed fields, listening to pheasants crowing . . . Someone usually waded in and took a shot around 8:57, and the salvo began.

My first opening day was frustrating. I blasted away at five or six roosters with my brand new shotgun and missed every one. In the midst of all the confusion, these were not particularly diffi-

This month's column is an excerpt from the book *A Rough Shooting Dog* by Chuck Fergus. The book deals with training and hunting with the author's English springer spaniel, Jenny. It is available in bookstores. Autographed copies are available for \$20.95, delivered, from Charles Fergus, RD2, 340 Mountain Rd., Port Matilda, PA 16870. Illustrations by Joe Fornelli.

cult chances. It was just that I hadn't yet paid my dues, hadn't practiced on enough clay targets, hadn't tried my hand on enough game birds.

I killed my first pheasant a year later, some three months after Bob wrote that moderately shaming passage into my book. We were hunting in Lancaster County. We never hunted with dogs: After the opening-day ruckus, we simply got into the thickest cover we could find and bulled around in there. We kicked through every honeysuckle tangle and rose clump, shoved through every briar patch. Bob had a fine shotgun, a Winchester Model 21, its stock all furrowed and its barrels silvery, which he employed as a flail, slapping it down onto likely looking vegetation to drive out skulking pheasants. Sometimes we worked the weeds, trying to maneuver toward a choke point—the end of a field, a farm lane, a corner with some bare ground beyond.

We were tramping down a tongue of picked soybeans, with grass and weeds in it, which tapered conveniently to a point. Bob told me to look sharp. The cover appeared impossibly thin, so that the rooster, when he flushed, seemed to materialize from the ground. Bob had hung back, I supposed to grant me a chance. For some reason I was not set upon by panic, so often the case in the past. I knew this bird was mine. I hesitated for a moment, getting my feet right, not wanting to rush the shot, perhaps even savoring what was about to happen: I did as I had been instructed and swept the shotgun through the rising bird, pressing the trigger when the bead overtook the bird's neck and head, and, at the crash of the gun, the rooster shuddered to a stop and fell. At that moment I realized Bob had also shot. I suppose he couldn't resist, confronted with that big clamorous ringneck fairly blooming from the grass. He had killed hundreds of pheasants, and for him shooting was largely a matter of reflexes. And that kid out in front was far from a sure thing on flying game.

The pheasant was down, but the clear, clean hunter's note, which I had heard on so few occasions in my life, ceased to sound. "Good shot!" Bob said. "Go get him!" I broke the gun, went and picked up the bird.

Beyond the limestone quarry, we worked down a fencerow: Carl and Seneca on one side, Jenny and I on the other. The dogs made short forays into the thick growth. Out of a scrub cherry tree flew a bird, a white wraith on silent wings. The barn owl hissed like an old steam calliope, voided a cream-colored streamer, and flapped on down the fenceline to another tree.

We stopped on the edge of that rare phenomenon in southeastern Pennsylvania, a fallow field: a shaggy pelt of goldenrod, foxtails, asters, groundcherry, dewberry, milkweed loosing seeds to the wind.

I reached back and felt, in my game pouch, the big sacked-stone lump of the pheasant killed at the quarry.

"Why do you suppose he went out?" I asked Carl. "The dogs weren't working him."

"He's a young bird."

Birds of the year, besides being less savvy than their elders, are identifiable by the quarter-inch spurs on the backs of their legs. The veterans have three-quarter-inch excrescences sharp as bayonets.

"We must have outflanked him. The cover was pretty thin, and he didn't have any place to run."

"If he'd stayed where he was," Carl said, "the dogs would have flushed him."

And now the dogs were lobbying to get on with it, this field looking tempting to them, tempting to Carl and me as well, what with all the corn and the soybeans cut in the vicinity—a fallow field like this would fairly reel them in. But it was a wide field, and would be tough to cover.

"Hunt 'em up!" How many times would I tell her that, in how many different settings? Swamps and beaver ponds, log slashings and laurel thickets, and frost-

burned, thistle-infested, lovely fallow fields.

We spread out and started through the weeds. The sun grew dimmer behind the clouds. The farms all around were a spectrum of contoured tan and green bands, corn fields that looked vacuumed clean, picked soybeans, trimmed alfalfa, winter wheat, scarcely a fencerow in sight. The farmsteads were castle islands in a sea of fields, with tall blue silo keeps.

Halfway down the field stood a big spreading oak. From the base of its trunk—laced with ruddy poison ivy and maroon creeper—two birds suddenly flushed. “Hens!” Carl yelled. The gray-brown pheasants flew with a pell-mell flapping of wings, followed by a long, shifting glide. They sat down at the end of the field and scuttled into the fencerow.

A little farther on, Jenny’s tail sped up and the fur rose on her shoulders. Carl pinched in with Seneca. Our eyes blazed for the cockbird to come boiling out of the grass. Jenny spun out of the contact, took the line up the hill. The weeds petered out into short grass. Carl and I legged it along on either side. He kept Seneca with him—we had instantly communicated, in the way partners will, that this was Jenny’s bird: Having started it, she owned first rights.

She didn’t trail like a beagle, with her nose stuck to the ground, but swept up scraps of scent from the weeds, and perhaps from the air, drifting out slightly to one side and then the other, working quickly up the hill, through a fence on the crest, down across a picked beanfield into a neglected weedy crease. The crease was maybe six feet wide by 20 long.

I told myself: Let Carl kill him. If it gives him even half a shot, I’ll yell “Your bird!” and let him take it. We stamped through the weeds, and the seconds passed, and finally our steeled nerves went mushy, we had kicked all through the crease and he hadn’t gone out.

“What? . . . Did he run in here before we came over the hill . . . and flush?”

Carl shrugged. The dogs cast across the picked hardpan around the crease and did not show scent. Carl and I exchanged glances, which evolved into grins.

“He foxed us, but good.”

“You see how she took that line?” I was proud of my dog.

“She did a nice job,” Carl nodded. “But where did he go? Where is he?”

“Alive, somewhere,” I said, and we sat on the hillside and rested our legs, the dogs still snuffling in the grass.

Blame the decline of the ring-necked pheasant on the chemically purified farms. On mowing down the alfalfa too early (by hunters’ standards), to squeeze out one more cutting, every penny of profit—who cares that the hens’ nests are wrecked? Blame the pheasant’s ebb on the burgeoning “good life” of shopping malls and highways and houses lining sanitized look-alike streets, many of whose names mock the hunter: Briarwood Drive, Partridge Road, Pheasant Lane.

If you have a dog, you can still kill some birds. And a good partner helps. One who knows to circle and check each clump of brush, no matter how small; one who, where the cover splits, hurries to post on one avenue, shutting it off to



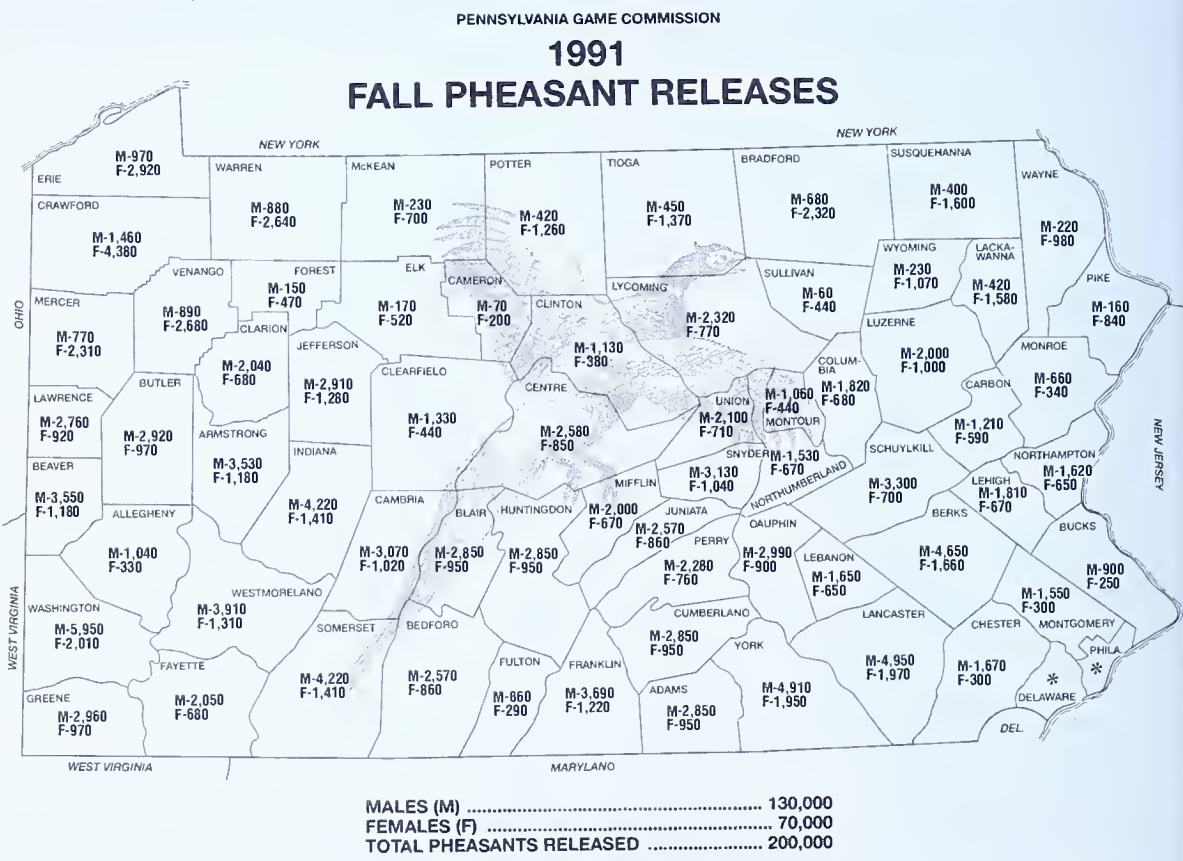
birds that may be slithering through the foxtails. One who will let you pursue your own hunt, even as he is pursuing his, in the autumn-brown grass of the fallow fields beyond the limestone quarry.

I watched Carl in that same band of cover leading up to the thick-boled open-grown oak, where we had flushed two hens and run out the rooster (presumably) on the day before. The tree lifted its great flourish of twigs to the sky. Three starlings took off from its crown, looking like cigars with wings. Seneca was interested in something at the briary base of the oak. I stopped and called Jenny in, slipped my fingers beneath her collar.

There: Carl marches up quickly. The Labrador, puzzled for a moment, finally unravels the scent. She rushes ahead. The cock leaves her behind, going out wild, cackling. But Carl is fast and smooth, and the pheasant tumbles before its derisive cackle is ended. And even at this remove, across half a field, watching another hunter in action, I hear the note: like a reprise, not so immediate, perhaps, but still telling and sweet. Carl looks up, sees me watching, holds aloft the rooster Seneca has brought to his hand.

When one hunts with a friend, it hardly matters who kills the birds. It hardly matters whether birds are killed at all. One must do right by the birds, by one's partner, and by the dogs. Hunting is a path along which the seeker, if his spirit be right, can truly feel the earth. If he is fortunate, he travels with a true dog and a true friend.

FOR THE FALL hunting season the Game Commission plans to release 130,000 cockbirds and 70,000 hens, all on state game lands and other areas open to public hunting. Forty percent of the birds will be released during the week prior to the opening of the season (November 2). Another 35 percent will be released during the first week, and the remaining 25 percent the second week. The sex ratio of stocked birds is 75 percent ringnecks where only cockbirds are legal, and 75 percent hens where both sexes are fair game.





DEER are apt to be moving to and from nighttime feeding areas while there is sufficient shooting light at the edge of the day. This is particularly true early in the season when the animals are less pressured. Picking the right trails will increase your chances of seeing animals within bow shooting range.

The Edges of Day

By Keith C. Schuyler

IF YOU'VE done your homework in preseason scouting, you should know right where to be on the first day of the archery season. Maybe you know a landowner who can direct you to spots where deer have been seen regularly. Even if you only did some spot-lighting—legally, of course—you should know general areas that hold deer. If you can relate to any of these situations, you should have a fairly good chance of at least getting some shooting opportunities.

Validity of the last statement can be summed up in one word: "Perhaps."

Much of the anticipation and excitement surrounding deer hunting with

the bow and arrow can be on about the same level as an income tax refund. You think you have things figured out in advance, but there are factors beyond your control that can alter your understanding. Further, situations change from year to year.

Even prescouting an area, an important aspect, requires a certain finesse. You should approach it with the same



care as you would an actual hunt. Too many trips to the same area are apt to teach the deer how to avoid your presence when you eventually carry a bow. If the spot is too obvious, you may have more competition from other hunters than you might like.

Nevertheless, preseason scouting can teach you the routes deer are likely to travel from their bedding areas to where there is a good supply of natural food, such as acorns, springs and small streams, and to agricultural fields with good grass, clover, corn, soybeans and stands of apple trees.

If you have a relative or friend who owns land favored by deer, you may have one advantage over many other hunters. And whether you do or not, if you're planning to hunt on private property, be sure to ask permission to do your preseason scouting. Many landowners are only too happy to have deer numbers reduced on their lands, and they frequently can tell or show you where the animals are most likely to be found.

Spotlighting can be more entertain-

ment than a practical way to locate deer for hunting purposes. All spotlighting really reveals is the general area in which deer are located. It might precede the more direct approaches to preseason scouting, but it has little relationship to actual hunting. The fact that deer can often be located in this manner, however, points up the real purpose of this column. Deer are basically nocturnal in their habits, and their vision has evolved accordingly.

Because of this, a red flag is in order concerning the hunting habits of a certain segment of bowhunters. Both spotlighting and hunting after the legal quitting time loom large in the number of violations reported each year. While archers can hardly be singled out for such infractions, the very nature of the sport offers temptations. Frequently, an archer may be watching a deer for some time before it approaches close enough for a shot. In the meantime, the very proximity of the animal may cause the hunter to forget all else except the possibility of downing that deer.

Aside from legal and sporting consid-

As the season progresses, archers may find it advisable to hunt deeper into the woods in order to intercept deer that are waiting for near-darkness before moving. Sportsmen must also carefully choose routes to their hunting areas and be mindful of wind direction or all they'll see is the white flags of departing deer.



erations, which go hand in hand, there is the matter of safety to other hunters. This is especially crucial in the morning, when the over-eager hunter has not had the opportunity to visually clear his area. A hunter, or a deer, may approach in the dark or dim light. A stupid shot may result in a human tragedy. It has happened.

There is no support for the argument that heavy cloud cover or fog may make a shot technically legal, but actually unsafe. Common sense dictates what the situation really is—a quirk of the weather. Certainly special care is in order. On the other hand, a bright moon and a clear sky might bring into question the practicality of the law when there is obviously plenty of light on the wrong side of quitting time. No rules can cover every situation. Respect for the law and a sense of sportsmanship must always govern our actions.

Fortunately, for reasons of their own, deer seem to prefer going to and from nighttime feeding areas while there is sufficient shooting light on the edges of day. This is particularly true in the early part of the season, before these clever animals realize there are more people than usual cluttering up their territories. By placing yourself on a good runway, your chances for action are favorable.

As the season advances, you may find it advisable to get deeper into the woods, to intercept deer that are delaying their nightly forays for food. Fred Schrader, Berwick, who made a hobby of having animals take their own photos, set up trip wires and photo-flash cameras for the night shots shown here.

Depending upon food sources, some animals may not leave woodlands and fringe areas except in the rutting periods. During the day, you may catch them moving around where there is favorable forage within the woods itself,

but I'm confining this column to the early and late parts of the day.

Like people, deer vary their diet for taste and nutrition. An apple, or a patch of alfalfa, beats eating leaves and twigs upon which the animals normally feed. And, like people, they sometimes let desire overcome instinctive discretion.

It is not unusual to see deer lying down in open fields at night as they chew their cuds or just rest. They apparently feel secure. Perhaps that is why they sometimes hurry from the woods to such areas long before dark and dally on their way back to safety in the morning.

When trying to interpret what a deer thinks at such times, consider the animal's regard for its safety. Because it is moving to an area of relative danger when it comes from the woods, a white-tail will generally be more cautious and alert in the afternoon. Its movements will be slower and more deliberate. It will frequently check the area, primarily by scent and sight, before moving forward. It is not unusual for the animal



It's always a good idea to inform your hunting partners where you're planning to set up your stand. Good communication between sportsmen sharing the same area lowers the likelihood of accidents.

to change direction or retreat hurriedly at some real or imagined danger.

In the morning, the opposite is usually true. At this time the deer is moving to an area of relative safety. It may come bursting out of a field to your woodland stand if something frightens it. But more likely, it will mosey up a trail or casually nose the leaves for some unclaimed tidbit on the way to its day bed. This is reason enough to look for acorn producing oak stands near or along deer trails.

Later in the season, you will notice a marked difference in the way these animals perform. Although they will adhere to somewhat the same schedule, they become much more cautious and alert. That's one reason why many hunters who pass up antlerless deer in the beginning of the season, while holding out for a buck, are disappointed toward season's end. They find that does, which sometimes provide relatively easy shooting opportunities early in the season, can be most challenging in the later weeks.

Air Movements

Factors that should be considered when there is little perceptible air movement are often overlooked. Normally, in early morning, cool air is still moving down the mountains before it reverses direction. In late afternoon, warm air is usually still ascending before it does a turnabout. These air movements should be considered when positioning yourself where there is a marked difference in elevation between your stand and the area from which deer are likely to travel. If air movement is such that it is easily detected, the only practical response is to take a downwind stand. In any situation, the position of a stand should be to the side of apparent runways.

As the season progresses, deer become more wary, and your problems increase correspondingly. There is the

matter of squirrel and grouse hunters in mid-October to consider. In most instances, their shooting is less bothersome to deer than their physical presence in the woods. It is usually a tossup as to whether such activity drives the deer from or to the archer.

Further, the older—smarter—bucks and does will begin to limit their movements until just prior to and during the hours of darkness. It behooves the archer, therefore, to move deeper into the woods, to intercept such movement while legal shooting hours still remain.

A wise old buck, one that ignores the careless laughter and shouts of youngsters at a school bus stop in off season, takes a different view of stealthy moves by bowhunters during the season. He knows that the experience and instinct which permitted him to grow to full maturity must continually be employed to preserve his status.

When rutting activity, largely governed by the weather, picks up in late October, much of what is considered here will still hold. For although buck activity may be less predictable, it will still be influenced by the movement of does.

In my own experience, by far the greatest number of successes on stand, all on the ground, have come in early morning. At this time the woodlands have been cleansed of human scent for the most part, and it is a new day's game. By afternoon, both people and deer have normally shared a large area of huntable land, and the animals enjoy a decided instinctive advantage.

As in all considered suggestions about how to outwit the white-tailed deer, it is necessary to almost monotonously employ words such as probably, usually and often. There is no panacea for success. Yet, if an archer absorbs the information presented here for hunting during the legal side of early and late in the day, it should improve chances to take a deer with the bow.



BULLET CASTING can be a rewarding hobby and save its adherents a bit of money. Lewis says once someone gets into bullet casting, he'll wonder why he waited so long to start. Veteran bullet caster Ken Mollohan fluxes the lead with Marvelux before casting. Note the mold; it's being preheated on top of the furnace.

A Look At Casting Bullets

By Don Lewis

Photos by Helen Lewis

"IS THERE any other reason for casting lead bullets than simply saving money?" a relative asked. "I have a neighbor who spends hours with his cast iron pot, gas burner and a half dozen bullet molds. He claims casting is grossly overlooked, but after watching all he has to do, from preparing the lead, casting, lubricating and inspecting, it seems like a waste of time to me. And what bothers me most is his claim that bullet casting is the sign of a dedicated shooter. Do you believe that?"

"No matter how I answer, I'm in deep trouble," I replied. "But I'll step out on the proverbial limb and state that casting is more than what many handload-

ers believe. The ease of obtaining high quality, jacketed bullets for only a few cents each keeps many shooters away from the casting furnace. They just never learn to appreciate the benefits of casting lead bullets. It's safe to say that bullet casting is an art and a sign of an articulate shooter."

"That all might be true," my persis-





LEAD IS RELATIVELY safe to cast, but there are safety conventions that must be observed. Always wear eyeglasses, long-sleeved shirts, heavy gloves, long pants and boots. Moisture and molten lead is an explosive combination. Casting tools must be completely dry. Shown here is a Lyman four-cavity mold after bullet sprues have been cut off.

tent relative replied, "but it's common knowledge that cast bullets have substantially lower velocities than jacketed bullets, and it's just as true that cast bullets foul the bore. Don't you think those facts alone make cast bullets less efficient and less desirable than copper clad rounds?"

Not Much Faster

"You're slightly off base by saying cast bullets have 'vastly lower' velocities than clad bullets," I state. "Using a 308 Winchester, for example, shows that a popular load of 4759 behind a 148-grain cast bullet generates a muzzle velocity of 2070 fps. Velocities with the 150-grain jacketed bullet run from 1654 to 2882 fps. I think this shows that the jacketed bullet doesn't fly two or three times faster than a cast lead bullet."

The conversation lasted several more minutes, but his statement about barrel leading stuck with me long after he had gone. Barrel leading can be a nuisance for those using cast bullets. It's really not that much of a problem when hard

bullets, properly sized and well lubricated are used. It's probably more of a handgun problem than a rifle demon. Factory bullets that are swaged from lead that is too soft for use in many magnum handguns will deposit lead in the barrel.

There are various methods for removing lead from a barrel, from vigorous scrubbing with brass brushes to barrel cleaning solvents. The Lewis Lead Remover (no relative of mine) has been popular among handgun shooters for years. It involves the use of a brass or bronze patch to remove the lead. Many bullet casters remove lead from their barrels by simply firing a few jacketed bullets through their rifles or handguns. Hoppe's Benchrest #9 or Shooter's Choice will remove the copper fouling left by the jacketed bullets.

It's fair to say that lead has long been the most popular material for making small arms bullets. Other materials come fairly close, but not one found so far possesses all the desirable qualities of lead. Lead is easily obtainable, soft

THERE IS a variety of casting furnaces that will do the job. Lewis's electric pot has a 20-pound capacity; it's fastened to his workbench by a large lag screw. Casting must be done in a well-ventilated area.

and easy to work with, and is not expensive. However, lead's best feature is its weight. No other common metal has as high a specific gravity, which means lead retains velocity better than other metals.

Lead's softness makes it easy to work with, and from a caster's point of view, the low melting point of lead makes it relatively safe to cast. Lead is not hard on barrels like iron, steel and other metals are. In fact, I have read that it's next to impossible to wear out a bore by shooting only cast bullets.

During our conversation, my questioner mentioned the hazards connected with melting lead. He not only pointed out the risk of getting badly burned, but also the danger of inhaling lead fumes. No sensible caster can argue against those two points, but by taking some simple precautions, both of those hazards can be safely overcome.

As far as burns go, it's imperative to wear protective eye glasses, long-sleeved shirts or sweaters, heavy gauntlet-type gloves and shoes or boots that completely cover the ankles. I like to wear lace-type boots and pant legs that go completely down over the boot tops. Even with heavy clothing and boots, splatter burns are still possible, but the chances of getting serious burns are greatly diminished when taking these precautions.

Inhaling lead fumes (ingesting lead into the body) is very dangerous. It's really wise to cast in well ventilated areas. My electric casting furnace is in my test shop, but I have a vent fan that pulls all the smoke and fumes outside. When using gas for the heat supply, proper ventilation is a must because there is also the danger of carbon monoxide poisoning.

Smoking is dangerous while casting, and never eat or even handle foods



while working with lead. After working with lead, thoroughly wash your hands and face before eating or touching anything that will be put in your mouth.

Moisture is the caster's enemy. Even a small amount of water put in molten lead will cause a steam explosion reaction, throwing hot lead in every direction. Make certain bullet mold, lead dipper and bullet metal are totally free of moisture. Also, keep the casting pot or furnace away from reloading components. An acquaintance had a close call when a live primer was dropped into the furnace with the scrap lead. Fortunately, the lead was not hot enough to ignite the primer immediately, but it did go off a few seconds later, after he walked across his shop to answer the phone.

A melting pot or furnace in use should never be left unattended, and by all means, keep children far from the casting area. RCBS's *Cast Bullet Manual* No. 1 says bad burns on youngsters are far more serious and life-threatening than on adults. An electric furnace should be anchored to a solid

table to prevent it from being upset, and it should be grounded to reduce the chances of electrical shock. Finally, some fluxing materials are flammable. Be careful when using these, but it's wise to use modern, non-combustible flux.

By now, it may sound as if casting is dangerous. Well, any hot material must be handled with care. Bullet casting is not new. Some form of casting has been going on since the dawn of firearms. Just use care and common sense.

New Dimension

Like my relative at the beginning of this column, many people think saving money is the only reason for casting. Scrap lead is easy to find, and even buying certain types of lead doesn't require mortgaging the farm. It is true that casting saves money, and a complete modern casting setup of top equipment will pay for itself in no time. The money saving angle will soon be replaced

when the caster recognizes some of the subtler benefits. I've stated many times that using your own handloads brings a sense of accomplishment when you score on the target line or in the field, and the same is true when it comes to casting your own bullets. It adds a new dimension to the shooting sports.

Let's go back to the financial savings of bullet casting. Although most dedicated casters use scrap lead, which is virtually free, paying 30 cents a pound would still produce 100 150-grain bullets for around 65 cents. A hundred 55-grain bullets would be around 23 cents. A hundred 55-grain jacketed bullets cost around \$5. I don't want to over-emphasize the cost aspect, but this example does show that cast bullets are inexpensive. Many handgun casters go so far as to use factory-made bullet traps when practicing so they can salvage and recast the lead.

Although I said earlier that lead is the only metal really appropriate for

WCO R. MATTHEW HOUGH, Allegheny County, received evidence in July, 1989, of a littering violation on a state game lands. Upon investigation, Matt uncovered more evidence, including a piece of paper with the name of a missing person Matt knew was wanted by the State Police. Subsequent investigations uncovered the body of the missing person, along with evidence he had been killed. In recognition of his initiative in pursuing an otherwise routine violation, which ultimately resulted in the successful prosecution of the person responsible for the homicide, Matt was awarded a Letter of Commendation from the State Police. PSP Captain Lyle H. Szupinka here presents the award to Matt, while Southwest Region Land Management Supervisor Dennis Jones and Law Enforcement Supervisor Larry Heade look on.



making cast bullets, lead by itself is too soft for making cast bullets for modern centerfire firearms. It deforms readily as it passes through the bore. To harden and strengthen the lead, it must be combined with another metal—tin or antimony—to make an alloy.

The chemical symbol for lead is Pb; tin, Sb; and antimony, Sn. Because it is imported, tin is very expensive. Bar solder is a bullet caster's best source of tin. It is made up of 50 percent lead and 50 percent tin. Discarded wheel weights are about 3 percent antimony and 25 percent tin. Linotype is sometimes available from print shops. It is 86 percent lead, 11 percent antimony and 3 percent tin. Never use battery lead for casting.

No. 2 Alloy is a rather hard metal that is superb for casting centerfire bullets. It contains lead, tin and antimony. It can be made at home. To make five pounds of No. 2 Alloy, mix 4½ pounds of wheel weight lead with ½ pound of bar solder.

Wheel weights are usually dirty, but are easily cleaned. After melting the weights, remove metal rim clips floating on the surface. Flux the metal generously and skim off the dross. Most of the dirt will be removed during that skimming process. Cast into one pound ingots, and when melted for bullet making, repeat the fluxing process.

The bullet mold is possibly the most misunderstood aspect of casting. Surprising to many people is that a bullet dropped from a mold is not ready to be seated in the case. It's unlikely that

even any factory bullet mold produces a perfectly round bullet of the exact bore diameter, so a hobbyist is hardly likely to either. In all likelihood, the bullet will be slightly oversize. It will be reduced in diameter and trued during the sizing and lubricating process. Cast bullets must be lubricated to prevent barrel leading, and you can write that in stone.

Sizing is also important. And for optimum results, novice casters should probably size bullets .001 larger than the bore diameter. This would come out to 309 for 30 caliber rifles and 358 for the 357 Magnum handgun, and so on.

Interesting Facet

The thrust of this column is not about how to cast bullets. My intent is to show that bullet casting is not only profitable but another interesting facet of the shooting game. New converts to casting would do well to work with experienced casters for several months before stepping out on their own. Also, only the bare essentials should be purchased at first, including a top grade micrometer and a cast bullet manual. Both RCBS and Lyman have excellent manuals on bullet casting, and these publications should be a part of every caster's library.

Casting is not just making round pure balls for flintlocks; it's a highly technical and sophisticated hobby involving all types of firearms. Once involved, you'll wonder why you waited so long to start.

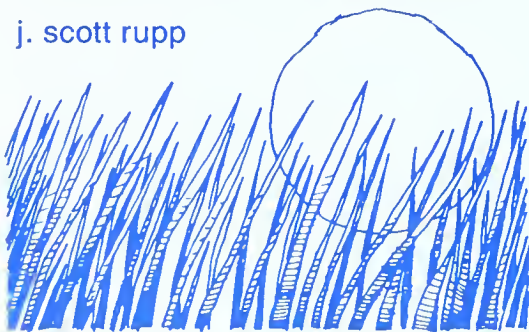
Books in Brief...

(Order from publisher, not from Game Commission)

Pennsylvania's Grand Canyon, by Chuck Dillon, photography by Curt Weinhold, Pine Creek Press, R.D. 4 Box 130B, Wellsboro, PA 16901, 48 pp., paperbound, \$9.95 plus \$2 s&h. Dillon has spent years guiding trips in the grand canyon area as operator of an outfitting service in Ansonia, and Weinhold is a Coudersport commercial photographer known for his pictures of the Pine Creek area. The handsomely illustrated collaboration is a well-rounded natural and social history of the canyon region. The final portions of the book are devoted to the problems facing the canyon and a plea for its preservation. People who've run the gorge or visited the region will appreciate the publication, and so will those who'd like to make the trip.

In the wind

j. scott rupp



A Denver, CO, couple recently donated \$60,000 to Wyoming's Game & Fish Department. The pair, who wish to remain anonymous, asked only that the money be used for purchasing land with important wildlife habitat values. Wyoming sent the couple a list of potential acquisitions the department was evaluating, and they picked a project to which their money would be applied.

Revenues from U.S. hunting and fishing license sales rose 5.6 percent last year. Income from the sale of licenses and associated permits, tags and stamps totaled \$748 million, compared with \$740 million in '89. Pennsylvania, with more hunting license buyers than any other state, was second only to Colorado in gross income generated by hunters.

Acid rain is killing sugar maples in New England, reports the *New York Times*. Researchers have determined that trees which normally live 400 years are dying at 65 or 70. The scientists project a dramatic decline of the species within the next 50 to 100 years.

The Boone and Crockett Club recently unveiled its National Collection of Heads and Horns exhibit. Housed in the Cody Firearms Museum at the Buffalo Bill Historical Center in Cody, WY, the collection features a number of world record specimens.

Nancy Howe, winner of the 1991-92 federal duck stamp art contest (reported on this page in March), is donating a percentage of monies raised from the sale of commemorative prints to waterfowl conservation. She is the first winning duck stamp artist to do so. The donated funds will go to Ducks Unlimited, which will match the money dollar for dollar. DU will, in turn, seek to match those funds with federal and private dollars.

Maine turkey hunters set two records in their spring gobbler season, the sixth such hunt offered in the state's history. Sportsmen harvested 21 gobblers in the 18-day season, two more than were taken in 1989. One hunter killed a 21-pound tom, breaking the existing record by a pound.

Whitetails Unlimited is offering free identification cards designed to promote good hunter/landowner relations and possibly open more land to sportsmen. The cards provide property owners with the means to determine who's hunting on their lands. Federal Cartridge Company underwrote the cards' printing costs. To receive the ID cards, write Whitetails Unlimited, Attn. Project POLITE, P.O. Box 422, Sturgeon Bay, WI 54235.

The cost of the Federal Migratory Bird Hunting stamp has risen this year. The stamp now costs \$15, up from \$12.50.

Kansas wildlife officials are asking residents to be on the lookout for sludge ponds and report them to biologists. The ponds, which have thin layers of water covering oil sludge, attract waterfowl and wading birds and often kill them.

Answers: If answered correctly, the left column should spell "BOW-HUNTER"



At the Den, featuring a pair of red foxes by Lancaster County artist Laura Mark-Finberg, is the ninth limited edition fine art print available through the Game Commission's "Working Together for Wildlife" program. As with previous editions, *At the Den* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125, delivered; framed prints are an additional \$97.50. Limited numbers of the 1986, '87, '88, '89 and 1990 prints, featuring the kestrel, elk, egret, white-tailed deer and bald eagle, respectively, are still available. Invest in the future of Pennsylvania's wildlife—and yours, too. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.



Voluntary Waterfowl Stamp No. 9

Pennsylvania's 1991 waterfowl management stamp, featuring a pair of wigeons by Gerry Putt of Boiling Springs, is the ninth "duck" stamp offered by the Game Commission. Funds derived from stamp and print sales are used for wetland acquisition, habitat development, and waterfowl-related education programs. Stamps cost \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of 10, delivered. For a savings, the cost of five or more 10-stamp sheets, in any combination of years, is \$40 per sheet. The 1989 stamps will be available through December 1991, at which time all remaining supplies will be destroyed.

Stamps are available at the Game Commission Harrisburg headquarters, region offices, Pymatuning and Middle Creek Wildlife Management Areas, and at participating hunting license issuing agents and stamp dealers. A limited edition of signed and numbered fine art prints of this design are available from art dealers and galleries.

PENNSYLVANIA GAME NEWS

NOVEMBER 1991

ONE DOLLAR



BOB
SOPCHICK



Working Together for Wildlife patches have proven to be extremely popular over the years. The first two in the collectible series, the osprey and river otter, issued in 1982 and '83, respectively, sold out quickly, and supplies are limited for the remaining patches. Funds derived from the sale of WTFW patches — and fine art prints — are used to support nongame wildlife research and management programs. Patches cost \$3 each, delivered. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

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FEATURES

One For The Books 3
By Jesse Sleboda

Quitter's Deer 6
By David Lortscher

Outfoxing the Grays 11
By Clark Johnson

Bear of a Lifetime 14
By David L. Chundrlek

Kennel 18
By John W. McGonigle

Coal Country Cocks 22
By Leland R. Moran

SPORT Essay Contest 26
By Jim Filkosky

The Pit Revisited 28
By Guy L. Ridge

NEWS

Field Notes 34

Conservation News 39

Outstanding Deputies — 1990 42

Books in Brief 63

In the Wind 64
By J. Scott Rupp

COLUMNS

Adventures in Dining (Another View) 43
By Linda Steiner

WCO Diary 45
By Keith A. Snyder

Thornapples 50
By Chuck Fergus

Keeping Comfortable (Archery) 54
By Keith C. Schuyler

Short Action Deer Cartridges (Guns) 59
By Don Lewis

Fun Games 60
By Connie Mertz

COVER PAINTING BY BOB SOPCHICK
(Cover Story on Page 10)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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A Debt of Gratitude

WHILE WE MAY NOT always appreciate it, as hunters we're fortunate in Pennsylvania. There are no guarantees when it comes to getting game, of course, not that any sportsman would actually want it that way. We're lucky because it's easy to find places to go hunting in Pennsylvania. Even inner city residents of Pittsburgh and Philadelphia can find nearby areas where they're free to hunt and trap.

Available to nearly all outdoor enthusiasts are three million acres of national forests, state forests and state parks, and certainly not to be overlooked are the Game Commission's 1.3 million acres of state game lands. Purchased by hunters and trappers, more than 300 state game lands have been obtained since 1920, and there's now at least one in every county of the state except Delaware and Philadelphia.

For the most part, though, the exceptional hunting opportunities sportsmen enjoy throughout the state are due not so much to the public lands, but to the amount of private property open to sportsmen. Years ago the Game Commission recognized that, despite its land acquisition program, access would still be a major concern. Therefore, in 1936 the agency launched the Farm-Game Cooperative Program. Through Farm-Game, farmers were encouraged to allow hunting on their land. In exchange for granting access to their properties, the Game Commission helped participating landowners with wildlife habitat improvement projects, stocked pheasants and other game on their properties, and provided increased law enforcement patrols. Also, as a token gesture, cooperating landowners received complimentary GAME NEWS subscriptions.

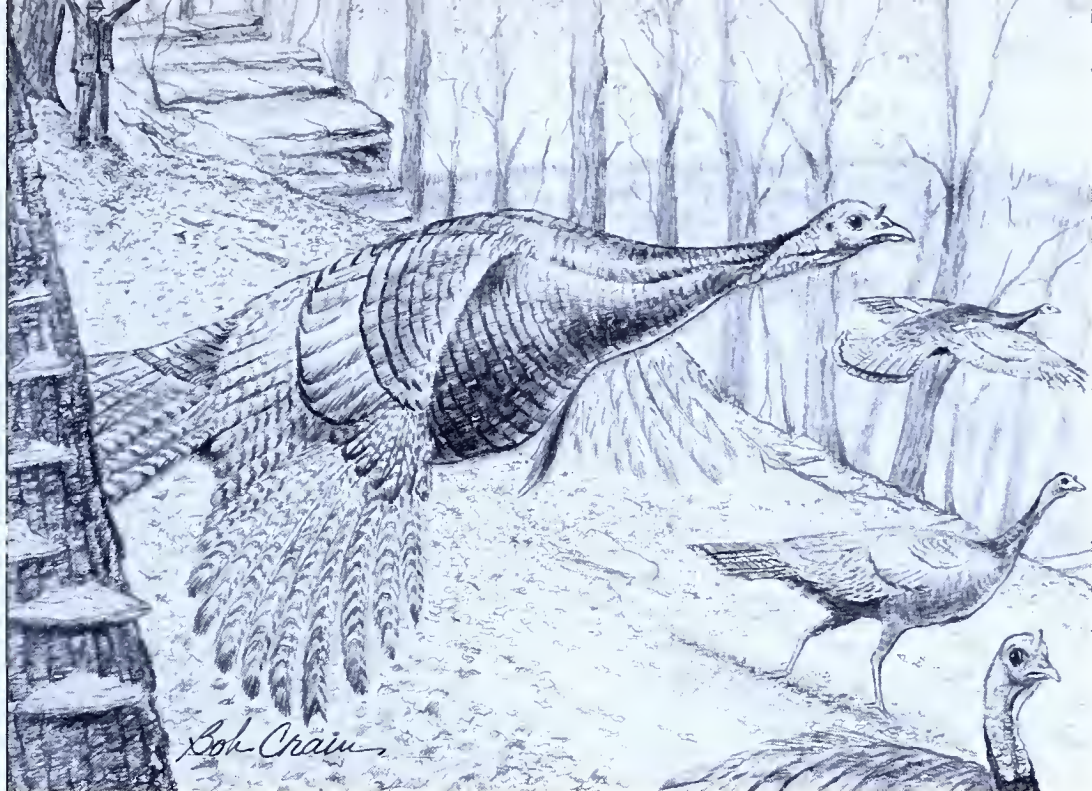
The Farm-Game program proved so successful that over the years the agency established the Safety Zone and Forest Game programs, which are offshoots of Farm-Game but designed to better suit the needs of other landowners. Today, thanks to the generosity of the more than 30,000 landowners cooperating in these three public access programs, sportsmen enjoy access to almost 4.5 million privately owned acres.

We should not take this access for granted. Not only is huntable land being lost as each new housing development encroaches upon rural landscapes, access is being further restricted because many of today's new landowners aren't as understanding of hunting or—it seems—as willing to share their land.

Just as it was decades ago, providing access will certainly be one of wildlife management's greatest challenges in the 21st century. It's a major problem in many states now, particularly in the Northeast. There, because there are few places to hunt, hunting license sales are not able to adequately support wildlife management. While those same trends aren't evident in Pennsylvania, they should be of concern to all sportsmen.

More than 50 years ago the Game Commission launched a program to encourage private landowners to share their land with hunters. Over the years, thanks to the agency's commitment to this program, the tolerance and understanding of the cooperating landowners, and the courtesy and sportsmanship of the hunters and trappers who have made use of these properties, the Farm-Game, Safety Zone and Forest Game programs have become the envy of nearly every other state.

As you're afield over the next several months, pause to appreciate the land on which you're hunting. And if it's private land, by all means show your appreciation to the landowner for extending the hospitality. One thing's for certain, it's the thousands of landowners who permit hunting on their properties who have made hunting in Pennsylvania so outstanding. —*Bob Mitchell*



MY BROTHER John had scattered a flock at the top of the mountain the day before. If the turkeys hadn't regrouped before sundown, we might be able to call in a young bird or two at daybreak. But as the morning progressed we got no responses from our calls, and it seemed the birds had gotten back together.

ONE FOR THE BOOKS



By Jesse Sleboda

DARKNESS, fog and a fine drizzle greeted us as we stepped from the car. Not exactly the weather we'd been hoping for, but it would have to do. It was fall turkey season and my brother John had scattered a flock at the top of the mountain the day before. If the turkeys hadn't regrouped before sundown we might be able to call in a young bird or two at daybreak.

After gathering our gear John and I made our way up the mountainside. The Tioga County mountain we were hunting is exceptionally steep, but we took our time because daylight was still hours away. We stopped many times to

catch our breath. We reached the top early, 45 minutes before it got light.

I heard the rustling of leaves in the distance, and I wondered what type of animal was out there. I thought about how little I would relish the idea of being lost and alone in the woods overnight.

The weather began to clear, and the sun's rays started to filter above the eastern horizon. John and I decided to split up and wait for the birds to begin calling. I settled down with my back to a big oak and pulled my old box call from my jacket. After chalking the lid, I lightly scratched it across the box, try-



ing to imitate the soft tree yelp. Nothing responded. As daylight increased I turned to clucks and yelps. An hour passed. John and I realized the turkeys had already regrouped, so we set out to find the flock and scatter it again.

The mountain we were on resembles a horseshoe. We walked the top, one on each side of the ridge, stopping at intervals to compare notes. We might catch a flock feeding along the top, or spot birds down in the hollows below.

As I began walking my side of the ridge, I noticed an abundance of acorns littering the forest floor. I smiled, knowing that acorns are high on a turkey's menu. After covering about a mile of the mountain, John and I met to talk. Both of us had seen squirrels, but nothing else in the game department. John said he noticed the acorns as we started our walk, but they dwindled as we continued out the horseshoe. With that in mind, we started back to the oaks, thinking the turkeys might return in the afternoon to feed.

Upon our return, John suggested we each find a spot and sit quietly without calling. I agreed.

I began to nod off after a half-hour; the early hours and the walking having taken their toll.

My dreams were cut short with the sudden report of John's shotgun. Springing to my feet, I made my way to John. He said three turkeys had moved through the timber below; his hurried shot was a miss.

John decided he would go in the direction the turkeys had taken. I told him I would stay at the flush site because a scattered flock of turkeys will usually regroup nearby. When John was out of sight, I began to clear the leaves from the base of an old oak. I leaned up against the old tree, pulled out my box call, and laid the shotgun across my lap. Just then I heard a turkey call.

I could hardly believe my ears. John had seen only three, but it seemed a whole flock had been split up. They must have flown down the ridge when he shot. Although it had been only 10 minutes after the scatter, one had already returned. I gave the box call four quick scrapes, and the turkey answered. Thirty seconds more and I called again. The turkey answered somewhere just over the ridge. He was coming fast. I set the call down and pulled my knees up. The shotgun rested on them, the barrel pointed in the direction of the turkey.

The woods seemed to become still. I knew it was time—the time for which every turkey hunter lives, the moment just before the bird appears. I sensed movement to the left and strained to see a turkey cresting the ridge. I remained still. The turkey kept coming, now well within shotgun range. As the bird stepped behind a tree I raised the 12-gauge to my shoulder. As the bird stepped from behind the tree it seemed to spot me, but I squeezed the trigger and the load of No. 4s put the bird down for good.

I quickly retrieved my trophy, a ma-

Thoughts While Walking

When tillage begins, other arts follow. The farmers therefore are the founders of human civilization.

—Daniel Webster

ture hen, and returned to my tree. After unloading my shotgun and tagging my trophy, I tried to take in what had just happened. My heart was still racing. I was trying to calm down when more turkeys suddenly began keeing. I scratched out a few calls, hoping to lure them in to possibly give John a shooting opportunity. Soon turkeys were atop the ridge. There they stood, 40 yards out, necks stretched, looking for the remainder of the flock. I jumped to my feet and ran directly at the birds, yelling and waving my arms. The turkeys took wing down the ridge. Now I hoped John could collect his bird.

I called John, and he found a spot close to my own. We began calling. Twenty minutes later the woods were again filled with turkey talk. I had heard of hunters calling in as many as four turkeys from a single scatter but never really believed it. At that moment I became a believer. The kee-kee run of a young turkey grabbed our attention. It was behind us, trying to join the birds I had scattered down the ridge. He

would have to pass close to us in order to regroup. The calling came closer, but I still couldn't find the bird. For the second time, John's shot caught me off guard. Even though the turkey came from behind, John had no trouble spotting it. I rushed over and found John proudly standing over his young turkey.

These turkeys were firsts for both of us. Having taken them on the same day added to the elation. We congratulated each other, took pictures, and just enjoyed one of our finest days afield. The hunt was certainly one for the books, one two brothers will never forget.



Photo by Paul Judson



The Carnegie Museum of Natural History, Pittsburgh, hosts "Portraits of Nature: Paintings of Robert Bateman" November 12 through March 8. The exhibit will include several of his newest works. Bateman will also lecture at Carnegie November 14-15. For more information, call (412) 622-3131.



Quitter's Deer

By David Lortscher

I SHIFTED THE TRUCK into second gear and threw gravel as I left the motel in Emporium. It was only the second morning of Pennsylvania's buck season, but I had already checked out of the motel room and was headed home to New York state. I felt disgusted, discouraged and defeated.

For the second time in two days, my new gun had malfunctioned—this time with a nice forkhorn in the sights instead of the handsome 6-pointer that had escaped the previous day.

As I headed north on Route 155 out of Cameron County, I felt a wave of bitterness come over me—an old and familiar feeling. "I'm just not supposed to get a Pennsylvania buck," I thought. After three years of Pennsylvania hunting, I had lost again, and now I was quitting.

I thought back to a day on Davis Road in New York 25 years earlier. It had gotten bitterly cold and had started spitting sleet and snow. I was in my early 20s and had been "adopted" by an old-timer named Carl, who felt sorry for me because I couldn't seem to get the knack of deer hunting.

I had returned to my truck to get warm, and the next thing I knew Carl was knocking on the window, which by then was covered with two inches of snow.

"I've been looking for you," Carl said. "I wounded a buck earlier, and I was trying to follow the blood trail before the snow covered it, but I couldn't move fast enough. The deer walked by the stand I put you on and even fell down near it. I'm sorry you weren't there."

Carl spoke softly, but it wouldn't have hurt more if he had yelled. I later apologized and asked which direction the deer had taken. I searched long hours but never found it.

That night, Carl continued the les-

son. "You don't get 'em sitting in trucks, and you don't get 'em staying in bed. You don't get 'em in bars, and you don't get 'em playing poker in camp, and you don't get 'em sitting in front of a TV. You get 'em by hunting every legal minute of every legal day."

The next day I again walked for miles in the woods, still hoping to find Carl's buck but I had no luck. My one chance to repay the old man for his kindness ended in defeat.

Now, 25 years later, I was ignoring the advice he had drummed into me: "Don't quit. Keep hunting, and don't quit." Many times that advice had paid dividends. I thought of the Thanksgiving afternoon in New York when everyone had been driven out of the woods by a heavy downpour. I started to walk out of the woods too, but remembered Carl's advice and bagged a 12-pointer later in the day.

Another year I went after a wounded 5-pointer. The hunter who'd shot it quit because of heavy fog. I got that one, too.

Carl's advice had paid off so many times that I knew I had to make a U-turn rather than quit hunting.

Back in Emporium, the gunsmith analyzed my problem as a fouled firing pin, clogged from too many doses of the wrong kind of oil. "It's a great penetrant and a great preservative, but a poor lubricant," he said. "It just can't take the temperature extremes to which we deer hunters subject our guns. Yesterday, you hunted in minus 17 degrees, and last night you were in a 70-degree motel room. Then back into freezing weather this morning."

With the gun problem solved, I turned my attention back to hunting. The day before I'd met another hunter on top of the mountain who had invited me to his camp for lunch and a chance to warm up.

"These woods are too big for one



I'D ZEROED my rifle at 150 yards, and it was a little more than two inches low at 200. Because I rarely hunted with a rifle in my home state, I wasn't sure how much it would drop at 300 yards.

afternoon, and I'll sleep in my truck if I have to so I can hunt all week. And I won't quit 'til sunset any day."

Bill pushed back his chair and groaned. "Let's go hunting," he said. "You've shamed me into it. I'm not going home a quitter either." He quickly unpacked and we took off.

By mid-afternoon we were on our way up the mountain. "I'm going to post you one bench from the top," Bill said. "The spot overlooks a large amphitheater of hardwoods. The deer seem to like to cross through there. I'll go to the other side of the mountain and come over the top. Maybe I'll get a shot on the way."

"I'm hunting for a deer to give to a former hunting buddy of mine who has crippling arthritis," I said, "so find a big one for me."

"Just make sure you hit it when I send it by," Bill called over his shoulder.

"I'll buy you the biggest steak in town tonight if I do," I yelled after him.

By the time I reached the amphitheater, my hat was soaked with perspiration and sweat ran down my back. It took 10 minutes for the steam to clear from my glasses.

No sooner had they cleared when I caught motion out of the corner of my eye. I turned and looked high up on the side of the mountain but could see nothing. I figured I was imagining things, but a few minutes later I saw it again. When it happened a third time, I got out my binoculars and began searching the thick hardwood slope.

After about five minutes, I saw it: a leg, slowly moving through a small opening. Was it Bill, still-hunting toward me, or was it something else? I watched more intently, and finally saw a large deer moving stealthily around me, through thick cover nearly 300 yards away. Had it winded me, or was I just on the wrong trail? No matter; I had work to do.

man," Bill had said. "Up here it's one-on-one with the deer, and they always win. Come in for lunch, and then we'll do some two-man drives."

I had declined, but now I knew he was right. I drove to his camp, only to find him in his street clothes preparing to leave for home. "I've had nothing but bad luck," Bill said. "I guess I'm just not supposed to get a deer this year." I laughed in spite of my disappointment.

Tale of Woe

"What's so funny?" Bill asked.

"I used the exact same words earlier today," I replied. "Give me a cup of coffee, and I'll tell you my tale of woe."

As I finished my coffee, I concluded by saying "And that's why I can't quit, Bill . . . all because of that day on Davis Road 25 years ago. I don't mind going home without a deer, but I'm not going home a quitter.

"I'm going up on that mountain this

I saw a small opening about 50 yards ahead of the deer—a 3-foot shooting lane where I might have a chance for a shot. My mind began racing. Was it a buck? Would my gun work? Could I hit a deer that far away? How high should I hold? Where I hunt in New York, I have to use a shotgun. I don't have near the experience with centerfire rifles.

My rifle was zeroed for 150 yards, 2½ inches low at 200. But how much would it drop in 300 yards? To compound the problem, I'd have only a split second to check for antlers and then aim as the deer crossed the small opening.

By now I had set my adjustable Red-field scope on 7x and was getting ready for an offhand shot. The crosshairs were waving all over the place. The gun seemed to become heavier, and my breathing got ragged as "buck fever" overtook me.

As the deer's head became visible, I saw it had a large rack, and I swung the crosshairs into position. The deer stopped, its chest behind a tree; the gun swayed even more. The deer finally stepped forward. I breathed deeply, placed the crosshairs six inches above the buck's heart, and squeezed the trigger.

The buck dropped in its tracks. I had never shot a deer with a 30-06, and I couldn't believe the shocking power at so great a range. I kept waiting for the deer to get up and run, but it never moved.

I saw another set of legs running back up the mountain—a second deer that I hadn't spotted while concentrating on the first.

I wanted to run and claim my buck, but a sixth sense kept me rooted on my stand. I would wait until Bill finished the drive he was making.

I was shaking from the excitement, and began to get cold. I waited 10 minutes, then 15, then 30. After an hour, I

gave Bill an extra five minutes for good measure, and then got up and began walking toward my buck.

On the way, I fell and snapped a large branch. As it snapped, I heard a loud snort on the mountain above me, followed immediately by a single shot. Then the air was filled with Bill's "yahos" and "yippees."

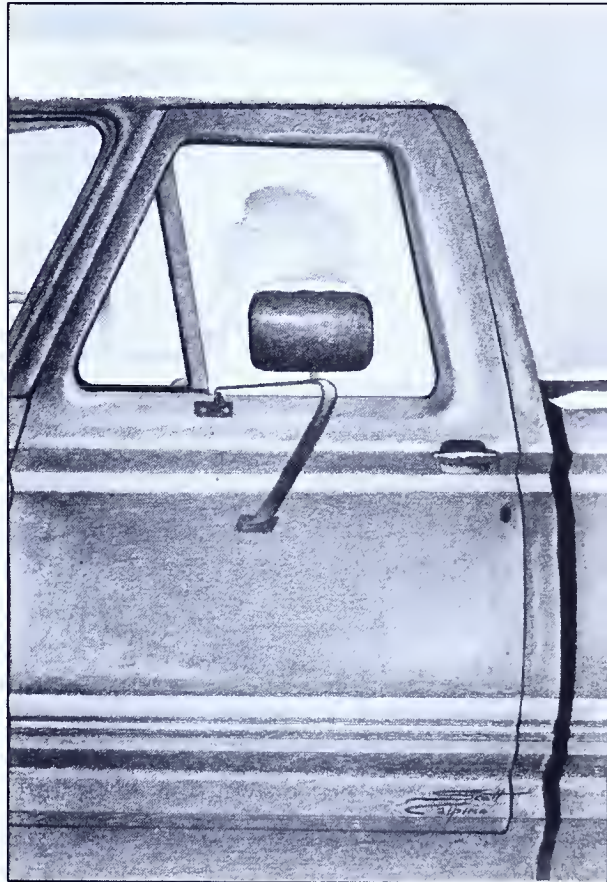
"Did you get one?" I yelled up to him.

"No," he hollered. "I always celebrate like this when I miss!" Minutes later he slid down the mountainside, skidding a plump spike behind him.

"Where's your deer?" he asked. I pointed to another part of the hill, and we climbed up together to retrieve my beautiful 10-pointer. Bill whistled through his teeth when he saw it.

"I knew it was a huge buck when I cut its track," he said. "The footprint was almost as big as my hand. That's the biggest buck I've seen come off this mountain in 30 years."

"Where have you been?" I asked, grinning through my cold split lips. "I'm



WHILE CARL had tracked the buck he'd wounded, I'd been back at the truck asleep. The buck had walked past the stand where Carl had placed me; had I stayed there, we'd have gotten the whitetail.



nearly frozen.”

“Get busy gutting that monster and you won’t be so cold,” he said.

“I got a scolding about 25 years ago, too,” he said. “A good friend complained that I was too impatient in the woods, and missed seeing a lot of deer as a result. Your story about Carl got me thinking about my own deer hunting.

“I hit those fresh tracks right after I left you, so I circled above the deer in hopes of moving them toward you. When I heard you shoot just once, I assumed you had your deer, and I further assumed you had taken the big one.

“Years ago I learned that when you

shoot a big buck, sometimes there’s a smaller one behind it. That buck will sometimes backtrack a short way and then lie down and wait.

“I hunted as slowly and carefully as I ever have in my life, hoping to spot that second deer.

“After 45 minutes, I had almost given up, because I knew I was right above you. Then I caught this little bit of motion near a branch in a blowdown. I thought it was a chickadee and almost kept moving, but my friend’s words about patience came back to me and instead I lifted my binoculars.

“I finally made out a deer’s ear. The deer was only 70 yards below me, so I decided I’d just wait, even if the season ended with me still standing there. I got ready, and just about that time you must have moved, because the buck stood up and snorted. I spotted the 6-inch spikes and dropped him right in his tracks.”

We finished gutting the animals and began the drag back to the road. I told Bill that I’d never forget this memorable afternoon.

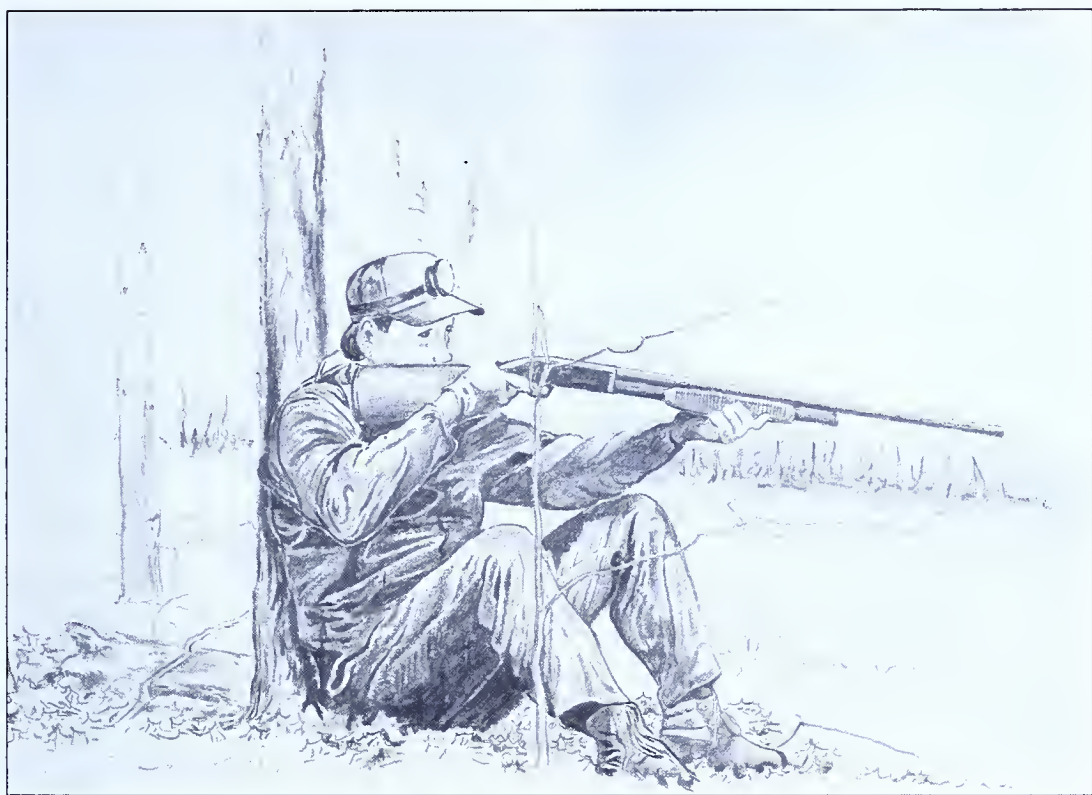
“There’ll be a lot more memories like this,” Bill said, “because you’re invited back here for buck season every year from now on. But right now, we’ve got an hour’s walk and it’s getting dark. I’m glad I’ve got the smaller buck to drag.”

“And by the way,” he added, “don’t forget you’re buying the steaks tonight.”

“With pleasure,” I answered with a grin. “This is how deer season is supposed to end. Let’s go find those steaks.”

Cover Painting By Bob Sopchick

Canada geese winging by on a frosty fall morning will get the blood stirring in even the most seasoned outdoorsman. And well they should. Canadas, it seems, are true survivors. While most waterfowl populations are plummeting because of all the draining, filling, building and other encroachments being inflicted upon wetland environments, Canada geese—in Pennsylvania, anyway—are adapting well to modern land use practices. Years ago wintering geese concentrated along coastal marshes from Maryland and Virginia south. In more recent years, though, with help from the relatively mild winters of late, many geese are traveling no farther south than Pennsylvania. So if you’ve yet to experience the thrills of watching a sunrise from a river bank blind, with an anxious retriever at your side and the sounds of stirring honkers somewhere off in the distance, don your foul weather apparel and give goose hunting a try. For Pennsylvanians, there’s never been a better time.



Outfoxing the Grays

By Clark Johnson

IT WAS A TYPICAL October evening as we prepared for our first night of fox hunting. Clouds had moved in and a slow drizzle had begun. It was warm, and Todd and I knew that meant fog.

"Why do we always get the worst weather on the first night?" I asked.

We had anxiously awaited this year's fox hunting season because our working schedules permitted us a lot of time to hunt together. As we put the red cellophane over the lens covers of our head lanterns and examined them for holes, we reminisced about the previous year's four-month season. We had taken nearly 30 grays and reds combined, and we hoped to top that this season.

It was 11 p.m. and we couldn't start hunting until midnight. Our final preparations were made. We sat and watched the late night news before departing.

It was to be a short night, so we agreed we'd have to be quick. Todd quickly rattled off 30-some fields he'd like to try. I was accustomed to letting him map out the night's schedule because he was more familiar with the area.

As we stepped outside we noticed the drizzle had stopped and the air was warm. It was going to be a great night for hunting.

We headed for our first field, an area we call the "hot spot." We were anxious



to start. My watch chimed midnight as we pulled in. Todd got the electronic call and I grabbed my 12-gauge and a flashlight. We wore camouflage outfits.

We walked as quietly as possible, moving as far from the road as we could. The light rain that had fallen made for silent walking. We set up and started to call. As soon as the high-pitched rabbit distress call sounded, we began scanning the thickets with our lights for oncoming fox eyes.

Nothing

Ten minutes went by. Nothing. We decided to pack the gear and go on to the next field. I unloaded as Todd re-wound the tape, and we headed for the car. We discussed whether we could've hunted the field differently and agreed we had done it correctly.

We started for an area that was loaded with grays the year before. We hunted six fields with no luck. Eight years of hunting foxes told us not to be discouraged, but we couldn't help but feel let down. I started second-guessing our field selection and calling methods. Todd reassured me we were doing nothing differently from previous years.

Field No. 8. I was beginning to tire of the lack of action. We set up in our

AFTER SETTING UP the call, Todd walked quickly back. Within three minutes we heard rustling in the leaves and out came another gray. It stopped in the clearing, offering a clean shot.

usual fashion and started the call. Five minutes passed and then Todd startled me with a quick tap on the arm.

"Something's coming," he said, and pointed frantically in the direction of a sound he'd heard. Then there was a flash and a pair of glowing eyes coming directly toward the call. I hoisted the gun to my shoulder and adjusted my light to see the bead.

"Wait 'til he gets closer," Todd said in a whisper.

The fox picked up speed as he closed. I didn't want to shoot until he stopped; experience told me to hold my fire. The fox ran to a high area about 30 yards in front of us and halted. Todd tapped my leg. I pulled down until I could just see the fox's eyes over the front bead of my shotgun.

The boom from the 3-inch magnum resounded from hill to hill. We both moved our lights directly to the fox.

"You got him, you got him," Todd said. He told me to watch for another one because he knew they liked to travel in pairs.

We called for another 10 minutes with no luck. We got up to go and I grabbed the big gray and examined him closely. He appeared to be healthy—no mange or fur damage was evident.

Todd congratulated me for a good shot, and with renewed ambition we headed for the next spot. Todd wanted to stop at a field no more than a half-mile from our previous setup, and I wondered whether it would be within the same calling distance of the last spot. But we had scouted this particular field and concluded it would be worth a try. We set up the call and started the tape. Only two minutes had passed when we saw eyes come charging out 60 yards in front of us.

The gun was already to my shoulder. The fox showed no signs of stopping. He came in at a dead run. Todd tapped my leg as the fox closed under 30 yards.

PATIENCE and perseverance bring rewards. The author and his partner enjoyed a great fox hunting season, collecting 55 gray foxes and several reds. To them, outfoxing foxes is the greatest sport of all.

I drew down and swung the muzzle with the fast-moving eyes.

At the shot, we both ran quickly in the animal's direction so we wouldn't lose sight of him.

"He's there," Todd yelled as he ran back to shut off the call.

We were on our way to a personal record. We'd never gotten more than three in an evening, but it began to look like we might do it this night.

We headed for "the flats," a swampy area notorious for grays. As we walked, we turned on our lights to look for an appropriate calling location. Todd grabbed the back of my arm—we'd walked right up on a hunting gray.

We stopped, and I whispered to Todd that I was going to "squeak" him. We'd done this often, "kissing" the backs of our hands to make a rodent-like sound. At the first squeak the gray turned his full attention our way and ran to an open area just 30 yards in front of me.

The 12-gauge boomed again. We could easily see the dead fox in front of us.

Todd told me to stay put while he set up the call, and he walked about 50 feet away and turned on the machine. He walked quickly back, and within three minutes we heard rustling in the weeds 50 yards to our left. Our lights simultaneously jerked to the spot.

Out came another gray. It stopped in the clearing, offering a clean shot. I could see its outline clearly.

I fired, and with that shot we had taken two foxes at one spot. Another first for us. Our patience was paying off.

We headed for the car with the call, gun and foxes. The night was coming to an end. Daylight would arrive soon, so we quickened our pace. We called five locations before turning toward home but were having no success.



We pulled into our last calling spot. "Well, let's get one more," I said to Todd, but it was hard to revive our enthusiasm at 5 a.m.

We set up in a thick goldenrod field near a right-of-way. The call ran for 10 minutes before we decided we'd had enough. We stepped onto the road to get the call. I stopped and looked up and down the road with my light.

"Todd!"

Plenty of Time

His light was already pointed in the same direction as mine. A set of eyes was plainly visible 100 yards away. We had plenty of time to get ready as the fox approached. The gray instantly went down at my shot.

The season had begun successfully, much of which we owed to our patience and perseverance. I dropped Todd at his house and headed for home in the early morning sun.

In the end, our season netted us 55 gray fox. We worked hard to skin and flesh the furs with utmost care. There's no easy way to have good furs; it takes a lot of time and hard work. But a true love of the sport makes outfoxing grays the most rewarding hunt of all.



Nicholas A. Rosato

Bear of a Lifetime

By David L. Chundrlek

MY COMPULSIVE interest in black bear hunting began, I think, with my great grandfather. We went to see him days before he died, and the thing I remember most was two mounted bear heads displayed on his wall. Mom said he'd been quite a hunter and was very handy with a rifle; my great uncle said great grandfather had shot several bears in his lifetime.

That was 1962. My great grandfather—who in the late 1800s used to make extra money by hunting and trapping along the Allegheny River in Warren and Forest counties—had purchased his hunting license and planned on deer hunting that fall.

I remember, too, that a childhood friend and I used to sit behind my Union City house during hunting season. Duane and I would watch for cars and trucks with deer and bear trophies atop them. In the off-season, we'd dig out Dad's GAME NEWS issues and read them cover to cover.

By the time I was old enough to hunt, my dad had heart problems and my older brother was in Southeast Asia. I talked people into taking me hunting. Even Mom went with me once in awhile—stockings and all—and we'd chase rabbits and pheasants with our hound Brownie.

When I was 14, Duane and I talked—well, maybe begged—his older brother into taking us bear hunting. The eight inches of snow that fell that night almost crushed our tent, but we had fun. For the next few years we camped in a motel outside Sheffield. Duane died before we were able to hunt our fifth season in the area.

For the next 13 years, summers were spent planning fall trips to McKean County for bear. Several friends got together for these outings, and over the years a special bond formed among us.

From the first day we hunted the

Burning Well area in 1975, we were hooked. There was snow, and we all saw tracks. The woods echoed with gunshots and yells from fortunate hunters.

Not all seasons were as exciting as the first. Some years were spent sitting on stumps watching the rain fall from the brims of our caps, hearing the occasional shot in the distance.

We had close encounters, though. Ted had a couple shots at a bruin running full tilt through the woods. That bear passed by me, too, but I never saw it. Ken picked up the track and followed the bear. He said he never got to see it, but he could hear shots along the bruin's path.

Turned Out To Be . . .

One year Dave chased a small bear from some dense saplings. We tracked the animal into a swamp. I spent 45 minutes sneaking up on a black object in the swamp that turned out to be a 55-gallon drum.

Our 1988 hunt proved to be a good one. We awoke at 4 a.m. in our motel room, took showers, packed our lunches and took off. We drove to the area in two vehicles; we split up and planned to meet at one o'clock.

It was cold and wet, a typical opening day. On reaching the spot I planned to hunt, I found a tree bent over from the '85 tornado and set up there. I could see about 100 yards in every direction; I loaded my rifle.

For the next hour, I heard distant shots in all directions. The shooting tapered off, and I took the opportunity to eat. As I finished, I heard shooting and yelling just over the hill. I fought the temptation to go see what it was all about. I'd seen it before, anyway—a dead bear and a crowd of people. Besides, maybe there was another bear around.

Half an hour later, getting restless, I



I GRABBED some shells and scrambled through the fallen treetops to where the bear had fallen. He wasn't there. My heart began to pound. Then I saw it; the bear had moved to a small pile of brush.

just as I was about to fire I saw orange about 30 yards beyond the bear.

"Did you get him?" the hunter asked.

"Yeah," I said. "Now get out of the way."

"I know he's your bear," the hunter replied.

"Get out of the way; he's still alive," I told him.

The hunter moved off and got behind a large tree out of the line of fire. I placed the crosshairs under the bear's chin and the 25-06 cracked one more time, putting the bear down for good.

Looking back, it seems funny how we got the bear out, but at the time no one was laughing. A dozen hunters had gathered, offering their congratulations and assistance. We'd brought a three-wheeler from Union City just in case one of us was lucky enough to get a bear.

Just before one o'clock I saw Ken at the top of the hill, and I hollered for him to bring the ATV. After some handshaking and back-slapping, it dawned on us the bear was too big for the three-wheeler. A Gibsonia hunter told me earlier he had a four-wheeler we could use, and we took him up on the offer.

After 10 minutes of pushing and pulling on the bear, we managed to get a leg and its head over the seat of the four-wheeler. Now what to do with the other 600 pounds? Another hunter suggested we set the bear on its haunches, move the ATV behind the animal, pick up the vehicle and tie the bear's head to the handlebars. We thought it was a crazy idea, but it worked.

At the bear check station, we asked one of the wildlife conservation officers where he wanted the animal.

He took a look at my trophy. "Not here," he said jokingly. He cleared a path to the scales, and we attempted to weigh the bear. But it was too big; its head drooped over the scales and its legs were lying on the ground. The best

reached for a candy bar. Two bites into it, something caught my eye: a big, black head poking its way through the thick brush. I couldn't believe it. But there it was, a black bear so close I could see it was wearing an ear tag. I took the safety off and raised the rifle, smashing the candy bar back into my mouth.

The bear was trotting, and when it reached a clearing I fired. The first shot from my 25-06 Mauser was a good one; the bruin turned and headed back from where it'd come. I began to have my doubts about 25 caliber bullets on bear. I fired several more times, and I knew at least two more shots hit the mark. The bear stumbled and fell.

Wasn't There

I grabbed a handful of shells, reloaded, and scrambled through the fallen treetops to where the bear had dropped. He wasn't there. My heart started pounding and my lungs felt like they were about to explode. Then I saw it. The bear had moved about 20 yards to a small pile of brush. He showed his teeth and made a low growl.

I quickly shouldered the rifle and decided to go for a head shot, but at the last second I changed my mind and fired into its massive chest. The big bruin just sat there looking at me.

This time I opted for a head shot, but

AT THE check station, we asked one of the wildlife conservation officers where he wanted the bear. "Not here," he said jokingly. The bear was so big it wouldn't fit on the scales.

estimate we came up with was 700 pounds.

Back home, after a short parade down Main Street, we took the bear to a local butcher shop that had a suspended scale. The butcher hoisted the bear, and after the beam stopped squeaking he certified the weight at 698 pounds.

Well, I've got my black bear trophy of a lifetime. It's proudly displayed in my home, standing tall with its ears almost touching the 8-foot ceiling. And though my chances of winning the Pennsylvania lottery are better than taking another bear as big as this one, I'll still be out there.



After all, it's not just the hunt itself but the fellow hunters you see in the woods each year, and the good times and memories shared with special friends.

Bear Check Stations

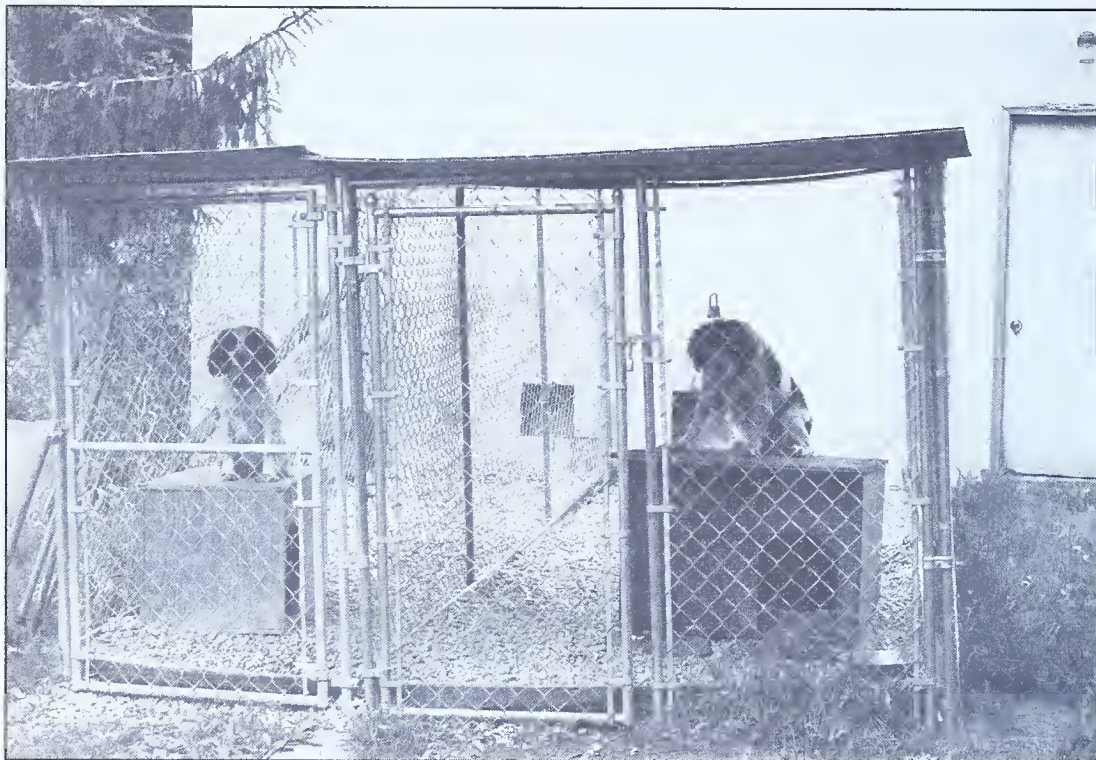
NORTHWEST: **Warren County**—Northeastern Forest Experiment Station, Routes 6 and 62 near Irvine; **Forest County**—Allegheny National Forest storage building, Marienville; **Jefferson County**—SGL 54 (site of the former Game Commission training school), seven miles northwest of Brockway off Route 28.

SOUTHWEST: **Indiana County**—Yellow Creek State Park, off Route 422.

NORTHCENTRAL: **Lycoming County**—Trout Run, intersection of Routes 14 and 15; **Tioga County**—SGL 208 storage building, three miles north of Gaines on Route 349; **Clearfield County**—S.B. Elliott State Park, off Route 153 just north of Exit 18 (Penfield) on Interstate 80; **Clinton County**—Renovo Forestry Building, two miles west of Renovo on Route 120; **McKean County**—Lantz Corners, intersection of Routes 6 and 219; **Cameron County**—Sinnemahoning, intersection of Routes 120 and 872; **Centre County**—Penn Nursery, Route 322 south of Potters Mills; **Union County**—Bald Eagle State Forest District Headquarters, Route 45 just west of intersection with Route 235.

NORTHEAST: **Bradford County**—Monroeton Rod and Gun Club, just off Route 220 along township road T-402 between Kellogg and South Branch, just south of Monroeton; **Monroe County**—SGL 127 storage building, Route 432 two miles southwest of Tobyhanna; **Pike County**—SGL 180, Shohola storage building, Route 6 at Shohola Falls, 13 miles south of Hawley; **Sullivan County**—Bureau of Forestry Building, 1.5 miles south of Hillsgrove on Route 87.

REGION OFFICES: **Northwest** (Venango County)—1409 Pittsburgh Rd., three miles south of Franklin on Route 8; **Northcentral** (Lycoming County)—Route 44, 1.5 miles south of Jersey Shore; **Northeast** (Luzerne County)—intersection of Routes 415 and 118, Dallas; **Southwest** (Westmoreland County)—339 W. Main St., Ligonier; **Southcentral** (Huntingdon County)—Route 22, one mile west of Huntingdon; **Southeast** (Berks County)—one mile off Route 222 on Snyder Road, seven miles north of Reading.



BECAUSE MOST people don't have the proper tools to build a kennel, ready-made or prefab kennels are more practical. They should be at least six feet high and have a dog box to keep the animal sheltered from the elements. Exterior plywood nailed over the top of the kennel is a good idea, but it shouldn't cover more than half the enclosure.

How to Keep Your Dog Home, Healthy and Safe

Kennel

By John W. McGonigle

THE DEBATE over whether to keep a hunting dog inside or outside has gone on for years. Each time one side seems to be winning, a dog kept the other way shows up and does such an outstanding job that the debate again becomes a draw.

While many hunters enjoy the companionship of their sporting dogs, trusting your house and its contents to a young, mischievous dog while you're at work is just not practical.

Outside kenneling is the answer, even if, like my two English springer spaniels, they come in once the work-

day is over. With that in mind, let's examine some key points in kenneling.

First, it is more practical to purchase a ready-made or pre-fabricated kennel than it is to build one. Most of us don't have the time, tools or experience to build a good looking, effective kennel run. Post hole diggers, fence stretchers and other equipment required for the job are not in most of our garages.

Most companies that sell fencing also sell pre-fab dog kennels. The most common pre-fab size is six feet wide, 12 feet long and six feet high. If you have the opportunity to have a kennel cus-

tom made, a 4-foot-wide kennel is adequate. The extra two feet in the six-footer is unnecessary because dogs get their exercise from running the length of the kennel.

A word of caution to those who would try to save money by using a kennel less than six feet high—don't. The only thing that keeps most dogs inside a 4-foot-high fence is that he doesn't realize he can get over it. One day an occurrence such as a strange dog on the property or a nearby female in heat will motivate your dog to escape—and he will.

Twenty years ago I owned a springer that was convinced the 4-foot fence surrounding our yard was sufficient to restrain him. At the time I was also convinced. One day a "traveling man" kind of dog passed by and hopped in to say "howdy" to my dog. The look of amazement on my dog's face was real, as was the look of sudden comprehension that quickly replaced it. Yes, we needed a 6-foot kennel.

The easiest floor to maintain is concrete. Sloped properly, a concrete floor can be cleaned of feces and hosed quite easily. Unless you can do the work yourself, having concrete pads poured for kennel floors is expensive. Further, they are obviously permanent, making them impractical for anyone who rents or whose job requires frequent transfers.

A good, practical flooring alternative is $\frac{3}{4}$ -inch limestone. First, cover the ground inside the kennel with 2 x 4 fencing, wired tightly to the bottom of the kennel. Next, line the inside of the kennel with 1 x 6 treated lumber, on edge, to act as a form or frame to hold the stone. Fill the kennel area to a depth of four to six inches with limestone. Make sure the limestone does not have "screening" in it, or it will pack like concrete and drain very poorly, even to the point of holding urine puddles.

The three-quarter limestone is good flooring for several reasons. It is too large to wedge between the dog's toes and pads and cause foot problems, and because it is rough, a dog's feet will



THREE-QUARTER INCH limestone makes good flooring. It's too large to wedge between the dog's toes and its rough texture toughens a dog's feet. Limestone's chemical properties break down bacteria that can cause disease. Concrete is the simplest floor to maintain because it can easily be cleaned, but it's harder to install.





THE KENNEL can abut a garage or shed, and a swinging “doggie door” will allow the dog inside access. This arrangement provides the ultimate protection from the elements and is especially handy for owners who are away all day.

quickly toughen, making him less susceptible to foot problems in the field. Cost for the stone is minimal, and installing it requires no skill, only muscle.

The final, yet important reason for using limestone is its chemical properties. It helps eliminate disease by breaking down bacteria in feces. Just as lime was dumped in the outhouse on the farm, and still is at many deer camps, the limestone helps with both odor and disease. Even though feces deposits should always be picked up both mornings and evenings, the limestone offers a little extra insurance.

Use A Rake

A good, heavy rake used once a week helps keep things smelling and looking fresh.

A dog house or dog box is a must, even if the dog is brought inside each night. Do not buy or build the typical dog house with a peaked or “A” frame roof. The dog’s body heat, necessary to keep him warm in cold weather, rises to the top of the peak. The peaked area

has too much air space, unnecessarily subjecting the dog to the cold.

A roof sloped slightly from front to back is ideal; it provides a chance for rain to run off. For many dogs it also offers an ideal spot to sit or lie and watch the world go by. Make sure the roof is hinged to allow access for cleaning the inside, and that it has an overhang in the front to keep rain from entering the box’s door.

A two-room dog house is preferable to a one-room house, since the second room allows the dog to get out of the wind if necessary. Both rooms should be just large enough for the dog to lie down—again, allowing the dog’s body heat to provide maximum warmth in cold weather.

The entrance to the dog house and to the second room should be just large enough to permit the dog to enter by stooping down. Too large an entrance allows for excessive heat loss and wind entry.

Exterior plywood nailed to 2 x 4s and fastened over the dog box area of the



A DOG BOX is a must, even if the dog is brought inside at night. The roof should be slightly sloped and hinged to make cleaning easy. A two-room house is preferable to a one-room because the second room allows the dog to get out of the wind.

kennel is good protection against heavy rain and snow. Do not cover more than half the kennel, though, because dogs often prefer to lie in the sun in cold weather. A wooden platform placed in the uncovered area is helpful to keep him off the ground.

If available, the kennel can abut a garage or shed, allowing inside access. Dogs still need an enclosed dog box to have a small area to warm with their body heat.

Place the dog box very near the front (gate) end of the kennel for cleanliness and disease control. Most dogs will defecate as far from their dog boxes as possible. If the box is at the rear of the kennel, as most people place it, the dog will defecate up front, near the gate.

When the boss shows up with food and water, or to take the dog out for training or exercise, the dog usually reacts ecstatically, running back and forth across the front of the kennel. He often steps in feces, picking them up with his feet, and transferring them into the house or vehicle. Also, in the normal

course of grooming, he may lick his feet, ingesting disease-laden feces as he does so.

Finally, and this can't be over emphasized, padlock the kennel gate at all times your dog is kenneled. Even with several dogs in kennels, locking is quick and easy to deal with, especially when all the locks are keyed alike.

Dog Gone

The most innocent circumstances can wipe out all the love and time you have invested in your dog. Suppose a neighbor's child comes by the kennel to see your "nice doggy." It can quickly go from "nice doggy" to "I want to pet the doggy." Suddenly the gate latch is lifted, the child pets the dog, and then wanders off—so does the dog.

That night a neighbor tells you that your dog was hit and killed by a car; the driver never stopped. Through tear-filled eyes you bury your pal under a favorite tree.

Think it can't happen? Trust me, I know.

Coal Country Cocks

By Leland R. Moran

IT WAS DEPRESSING. Part of our favorite woodcock covert had been posted and made off limits. The remainder was open, but the shooting had been very sparse the past two seasons. As any dedicated woodcock hunter knows, the birds are selective about where they touch down during their annual migrations.

Although the spot we frequented had been perfect a few years ago, the white birch and tag alders were growing up. The ground cover was getting thinner and a leafy forest floor was emerging under the maturing white birch trees. I'm sure an ample supply of the woodcock's staple diet—earthworms—remained. But the other necessity—reasonably dense ground cover—was diminishing as the trees matured.

Saved the Day

I was beginning to think that the whistling sound of a flushing woodcock's wings would soon become just a pleasant memory. That's when our friend Dick saved the day. He told us about a piece of property where he'd hunted rabbits. In recent weeks he'd been training his young beagle there in preparation for the upcoming bunny season. He'd raised a few timberdoodles without even trying. We decided to check it out.

Dad and I arrived there early opening morning. We were hopeful but a little skeptical. We weren't used to land open to the public, particularly an old abandoned strip mine owned by a local coal company. Upon arrival, it almost looked like we'd be better served with picks and shovels than shotguns. And as soon as we started, we saw two orange-vested hunters working to the right. I had my doubts.

Two minutes after entering the cover I noticed fresh woodcock sign and just when I was about to announce my dis-

covery the sign-maker whistled into the air. I missed twice as the bird angled toward my father. He was ready and promptly dropped the woodcock—a proper start for the season.

After some heavy-duty missing by both of us, I finally put a timberdoodle in my vest. It was funny; the bird sat tight and startled me silly as he rose noisily above my boots. I thought I had the bead on him as he winged straight away through the leafy treetops. When I squeezed the trigger, I saw him drop. Luckily, I reloaded before walking up to claim my prize.

When the little brown bomber rocketed up again I nearly had heart seizure. I let loose with three loads of lead in quick succession from the old Remington pump. Surely I had missed, but I thought I could raise the tiny trickster again. After trying frantically for 15 minutes, I was about to surrender when I noticed the long-beaked brown bird lying motionless on a hunk of black shale. My first coal country cock!

Dad had been filling the sky with lead during my search and about then he announced he had to go back to the car for more shells. It was not quite 10 o'clock. Not wanting to hog all the action and knowing my gun barrel could stand some cooling off, I volunteered to tag along.

While at the car, we decided to break for an early lunch so we wouldn't have to stop hunting and hike back again in a couple hours. We marveled at the place as we ate and gabbed about how it was even better than our old hotspot had been in its heyday. We had raised about a dozen birds in just over two hours. It seemed so strange to be hunting around scattered piles and strips of coal, shale and rock.

But in between the coal operations the woodcock cover was perfect. The marshy ground, young white birch, red



I TOOK TWO steps and a bird hurtled skyward, winging madly with speed more resembling a grouse than a woodcock. I futilely emptied the pump and watched the bird disappear.



M. G. RIO BRUMMETT

briars and tag alders offered concealment. I believe the coal and shale also had a bearing on the acidity level of the soil, which promoted an abundance of earthworms. Whatever the reason, the woodcock were happy with the place, and that made us ecstatic. We had also jumped a few rabbits—a fact that I filed for future reference.

Quick Lunch

We quickly gobbled our lunches and were rarin' to head back into the birch. After working for close to an hour with no results, I was beginning to think that the woodcock were all out to lunch. That's when a young timberdoodle rose up in classic fashion and hovered at treetop level for a split second, planning his aerial maneuvers. He didn't get to demonstrate because I promptly dropped him.

A short time later, we were forced to skirt around a gigantic mountain of coal. After finally getting clear, we came out to a tiny patch of good looking cover about 40 yards wide and 100

yards long. At the end of this football field size patch, we would have to change direction because we were nearing the property boundary.

I took two steps and a bird hurtled skyward, winging madly with speed more resembling a grouse than a woodcock. I futilely emptied the pump and watched the bird disappear. Just then, a second bird got up, quickly followed by a third. Dad fired two rapid shots but missed. He was too far off to the right. The cagey devils knew he was out of position and that my gun was empty. I could almost hear them snicker as they sailed to safety.

I had the presence of mind to reload before two more birds flushed. I could have left the gun empty for all the good it did. Three loads of No. 8s filled the sky as the pair flew to safety. Meanwhile, Dad was doing some missing of his own. Two woodcock got up together; he chose the better target—and missed.

I stepped into the middle of the area from which the five birds had lifted off—it was a plot about 30 yards square. I'd never seen anything like it. The ground was practically whitewashed with fresh sign. A casual glance and one would have thought it had snowed there. We had apparently walked right into an active feeding area. We knew all seven birds would be up ahead at the end of the cover, and we hoped to flush them again.

As we began to swing left at the far edge of the cover, our hearts raced with anticipation. The first woodcock got up quickly and I made a fine shot on him.

Being ready and at the peak of concentration helps. The element of complete surprise that comes with a flush is partially responsible for the difficulty in jumpshooting small game. *Knowing* that there would be birds in the area slightly lessened the surprise and thus made the shot a bit easier. That's why

success rates are higher when hunting with dogs.

By this time I had my limit so I unloaded and let Dad have the action as we worked back toward the car. Unfortunately, the remaining six birds whistled off wildly, one by one, without giving Dad a shot. A while later, upon nearing the car, he shot his second woodcock. It had a large earthworm dangling from its beak, something I'd never seen before.

We arrived at the car with five birds in the bag, one short of a limit for Dad. We had each shot close to a box of shells, and it had been many years since we'd seen such fast and furious action. We'd bumped several rabbits, too, and had seen only a few other hunters throughout the course of the day.

Dad went back the following Thursday afternoon and was able to score on one woodcock. He raised a few others but said the shooting wasn't anything

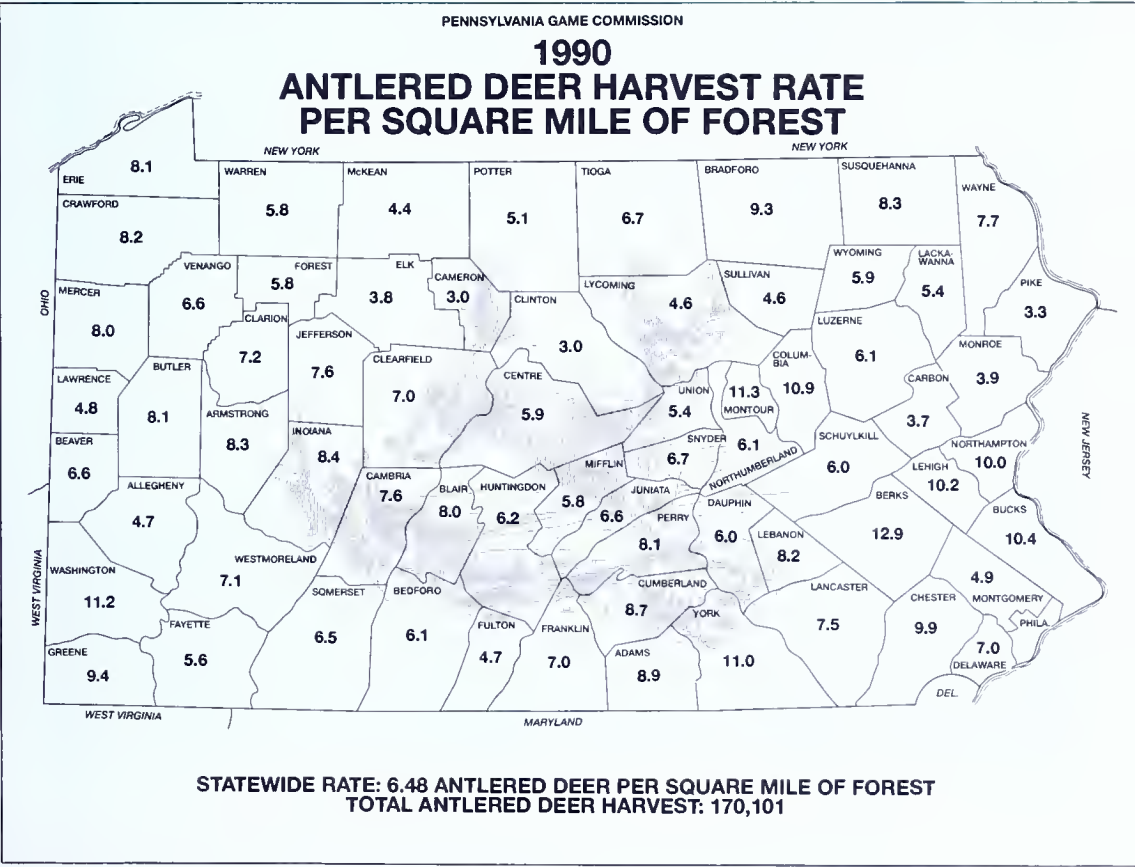
like it had been. Some of the birds had most likely migrated south, and the remaining timberdoodles were becoming educated due to the amount of hunting pressure.

Dick told us he visited the spot the following Saturday, the first day of rabbit season. To his dismay, there were nine other cars in the parking area. He and his buddy didn't have much luck at all.

There's talk that the coal company might sell the land. I sure hope not. If they don't, you can bet that Dad and I will be there bright and early on opening day this year, trying to beat the crowds.

Even so, there are no guarantees. The woodcock is a very fickle gamebird, here one day and gone the next. We may never see such wild action again, but we'll always have the memories of that fine day hunting coal country cocks.

THE NUMBER of bucks taken in any particular county is not necessarily a true measure of the county's deer hunting opportunities. Size of the county influences the number of bucks that may be taken, as does the number of hunters in a county. One measure of deer numbers used by managers, and can also be of value to hunters, too, is buck kill per square mile. As the map indicates, the traditional counties aren't always the most likely places to fill a tag.



SPORT Essay Contest



RECENT HUNTER-TRAPPER Education graduates and prospective **SPORT** essayists Josh Wilson and Kimberley Roseman admire one of the Savage 243 rifles being offered as prizes in the second annual **SPORT** essay contest. Last year, nearly 300 essays were submitted by middle, junior and senior high school students from across the commonwealth.

By Jim Filkosky, Chief

Hunter-Trapper Education Division

IF SOMEONE was to ask us whether we are “safe and responsible” hunters, we no doubt would immediately reply, “Yes.” But we say that without giving proper consideration to what the term “safe and responsible” means and how that code affects our actions afield.

Entrants in the Commission’s second annual **SPORT** Essay Contest will be asked to define “What being a safe and responsible hunter means to me.” The contest is open to middle, junior and senior high school students.

The Sportsmen Policing Our Ranks



Together program was launched by the Commission in 1976. It’s designed to promote sportsmanship and increase public involvement in wildlife conservation law enforcement.

The essay contest is a way to introduce young sportsmen and women to the program and simultaneously enhance their awareness of individual responsibilities in

safe and ethical hunting and trapping. Nearly 300 youngsters between the ages of 12 and 18 participated in the essay contest last year.

Junior (ages 12-15) and senior (16-18)

==== Contest Rules =====

1. Entrants must presently be Pennsylvania residents and have successfully completed an accredited hunter education or hunter-trapper education course and possess a current hunting or furtakers license.

2. There will be junior and senior categories. Age for juniors is 12-15; ages 16-18 for seniors. All entrants must be currently enrolled as students and have not yet completed 12th grade.

3. Entries must include the following information: name—first, middle initial and last; mailing address including zip code; age and date of birth; telephone number including area code; year, state and county where hunter education/hunter-trapper education course was taken; 1991 hunting or furtakers license number; name of school and grade.

4. Entries must be postmarked no later than January 31, 1992, and mailed to Pennsylvania Game Commission, SPORT Essay Contest, 2001 Elmerton Ave., Harrisburg, PA 17110-9797.

5. Essays must be printed, typed or computer-generated, double-spaced and contain no more than 300 words.

6. All essays become property of the Pennsylvania Game Commission. The first place entry in each category will be published in Pennsylvania GAME NEWS.

7. Judges will be selected by the Pennsylvania Game Commission and the judges' decisions will be final.

8. One junior and one senior winner will be selected. Each will be awarded a Savage Arms bolt-action 243 caliber rifle. First runners-up in each category will receive a New England Firearms 20-gauge single-barrel shotgun. Each second runner-up will win a pair of Tasco 7 x 35 wide-angle binoculars. These prizes were generously provided by the manufacturers. All contestants will receive sew-on SPORT and 1992 Working Together for Wildlife patches.

division winners will be awarded 243 caliber bolt-actions, courtesy of Savage Arms. Second-place finishers will receive 20-gauge single-shots from New England Firearms. Third-place winners in each category will earn Tasco 7 x 35 wide-angle binoculars. All entries receive SPORT and 1992 Working Together for Wildlife patches.

The essays, no more than 300 words, must be postmarked by January 31. Entries must include name, address, age and

date of birth, telephone number, grade and school district, 1991 hunting or furtaker license number, and the year and county in which the Hunter-Trapper Education course was taken.

Mail entries to SPORT Essay Contest, Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, PA 17110-9797.

Winning junior and senior division essays will be published in an upcoming GAME NEWS.

Woodworking for Wildlife

The Pennsylvania Wild Resource Conservation Fund (income tax checkoff fund) and the Game Commission have produced a 60-page booklet full of detailed plans and related information for people interested in building and erecting wildlife nesting devices. From bluebirds, screech owls and ospreys to raccoons, squirrels and even turtles, easy to follow directions for building 22 proven homes and other devices for wildlife are provided. Order *Woodworking for Wildlife* from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. Price is \$3 each, delivered.



I SAW 10 Cans flying low about 100 yards out. I blew several greeting calls and they turned in my direction. About 50 yards out they circled behind the pit, turned into the wind, and locked up. I decided to take them before they reached me. At 15 yards, I jumped up. The flock flared hard, but my first shot crumpled the lead bird.

The Pit Revisited

By Guy L. Ridge III

I REMEMBER the day well. It was February, damp and cold, with spitting snow carried on an icy north wind. My year-old black Lab, Natasha, and I had been out for about two hours trying to cure mid-winter cabin fever. It was that time of the year when the hunting seasons are only pleasant memories and the guns in the cabinet had already been cleaned three times.

We were wandering around an abandoned farm bordering the Susquehanna River that had recently been purchased by a newcomer to our area. There wasn't much to see: an occasional crow, a small but entertaining flock of black-capped chickadees, and a few field mice that scampered away

from the crashing of what probably seemed to them the boot of a giant.

I was depressed. I hate late winter. After the major hunting seasons are over it seems winter has no socially redeeming value. It was getting on toward dark when I spotted something familiar in the middle of a frozen, picked corn field. A closer examination confirmed my suspicion. It was a pit blind—an old one. Out of curiosity I raised the lid. One of the hinges had rusted off, but the remaining ones still functioned, albeit with creaking groans.

I climbed in but didn't shut the lid, leaving enough light to survey the inside. It was nothing fancy, but it was certainly functional. There were several

ONE OF the old blind's hinges had rusted off but the remaining ones still functioned, albeit with creaking groans. It was nothing fancy, but it was very functional. Empty shotgun casings were scattered about.

shelves strategically nailed to the walls and four notches in the plywood floor to rest the guns. A recessed area low on the front wall caught my eye and I assumed it was designed to accommodate some sort of portable heater. Nice touch. Empty shotgun casings with corroding brass bases were scattered about the floor. Mostly 12-gauge with a few 20-gauge casings mixed in.

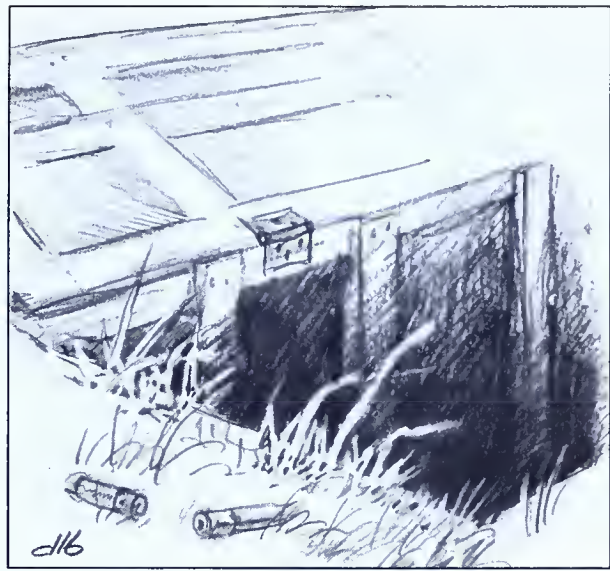
I wondered about the bygone occupants of the pit. Did the smaller shells indicate a wide-eyed youngster was part of the group, or just an adult with a special fondness for the 20-gauge—a hunter who picked his shots very carefully. I pondered what hunting stories the pit could tell and started to daydream about the dramas that had played here.

I imagined myself a guest of the hunters who built this simplistic masterpiece. Being an outsider, I just sit and listen to the discussions about gauge, choke and shot size. When asked, I toss in my experiences regarding calling techniques, decoy placement, and the effects of weather on waterfowl feeding patterns.

I smile at the youngster two spots down, reading the excitement in his eyes as he takes in his first Canada goose hunt. I'm reminded that it won't be long until my own children are old enough to take part in this sport I love so much.

I hear the whimper of the old man's Lab as the first flock of Cans approaches the decoys. I feel the nearly unbearable sense of anticipation as the birds respond to our pleading calls and set up to come in. I savor the intensity of the moment as we throw back the corn stalk-covered roof, desperately searching my assigned shooting area for a bird.

After the frenzied moment of shooting passes, I chuckle at the good-natured verbal barbs being tossed in



the direction of a hunter unfortunate enough to miss his shot. And I'm thrilled for the kid who keeps running his hand over the feathers of his first ever Canada goose.

As darkness fell I promised myself to talk to the new owners about permission to hunt geese. When I left the field I swore I could hear voices coming from the pit. They reminded me there's a tradition that needs to be carried on and that they would be patiently waiting for my return.

Two years later, I stopped the truck at the edge of the field in the pre-dawn darkness and wondered if it was still there. After all, it was in pretty bad shape when I discovered it.

From a planning and preparation point of view, it was a crazy idea. It was the opening day of goose season and I was going to hunt an area I hadn't scouted in a long time. For all I knew, the geese weren't even using the field anymore. But for some strange reason I didn't really care.

Because of the likelihood of a bust, I decided my only companion today would be Natasha. She was with me when I stumbled onto the pit and she wouldn't be overly disappointed if the day passed without a shot. As long as I shared my lunch and occasionally threw objects for her to retrieve, she would be happy.

The field was planted with a short

grass cover so I couldn't see any hints as to the pit's condition as I approached, probing the darkness with a small flashlight. I almost fell in the hole before I saw it. As I shined the light around the dark cavern, I saw the lid had rotted off, one end of the bench had collapsed, and the shelves that lined the walls had disappeared. But as far as I could tell the walls were still intact. I carefully climbed inside.

The plywood floor had rotted away in several places and the old shotshell cases that once littered the floor were gone. But, convinced the pit was still safe to hunt from, I climbed out and began setting up six dozen shell decoys.

As I toiled in the darkness, I could hear the collective voices of Canada geese as they began to stir on the nearby river. At least geese were still in the general area. With the dekes out, I told Tasha to load up. She dove in without hesitation

Dawn was breaking fast so I stuffed three shells in my Ithaca Mag 10 and blew a few warm-up notes on my call. Tasha settled in beside me, quivering with anticipation. The forecast was for

a mild, sunny day and, unfortunately, the weatherman guessed right. The rising sun illuminated a cloudless sky and brought a slight wind with it. Although it wasn't a stiff breeze, I decided to turn the decoys into it anyway.

As so often happens, I was caught in the dekes—but not by geese. A small flock of wood ducks zoomed past, safe in the knowledge that their opening day hadn't arrived yet.

In the distance I could hear an occasional pop as the sneak boats stalked the resting Cans, but nothing close by. The geese I heard earlier were now quiet, and I imagined them floating leisurely on the water and soaking up the sun's rays.

Nothing stirred for about an hour and a half. Then, in an instant, a major ruckus began. Excited honks filled the air as a series of loud blasts echoed off the river. Someone discovered their hiding place. About 30 birds appeared well out of shotgun range. Despite my pleading calls, they winged their way up river. I could still hear the fading string of shots after they were out of sight. I had no idea how many birds

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dropped in the initial salvo, but I saw two Cans tumble as the flock continued its flight up the gauntlet.

Even though they never even looked my way, the sight of the first in-season birds had my heart racing. I began to feel as if I wasn't alone in the pit. I knew the former occupants experienced the same excitement when the pit was in its prime. I had a sense of the bond waterfowl hunting gave me with those nameless gunners of opening days gone by.

Not much happened for the next several hours. The brief flurry of activity on the river had long since ended and the balmy temperatures were more conducive to napping than goose hunting. I amused myself playing with Tasha and practicing new techniques on my goose call. The day passed at a pleasant pace.

Around lunch, cloud cover began moving in. At 2 p.m., as if Mother Nature had thrown some secret switch, waterfowl activity increased markedly.

Flocks of woodies and mallards zipped past the pit. I could hear geese calling from several different directions.

I saw 10 Cans flying low about 100 yards out. I blew several greeting calls and they turned in my direction. The entire flock was coming hard for the decoys. About 50 yards out they circled

behind the pit, turned into the wind, and locked up.

I knew they had to drift over the pit to get to the decoys, but I didn't want to take an overhead or going-away shot. I decided to take them before they reached the pit. At 15 yards, I jumped up.

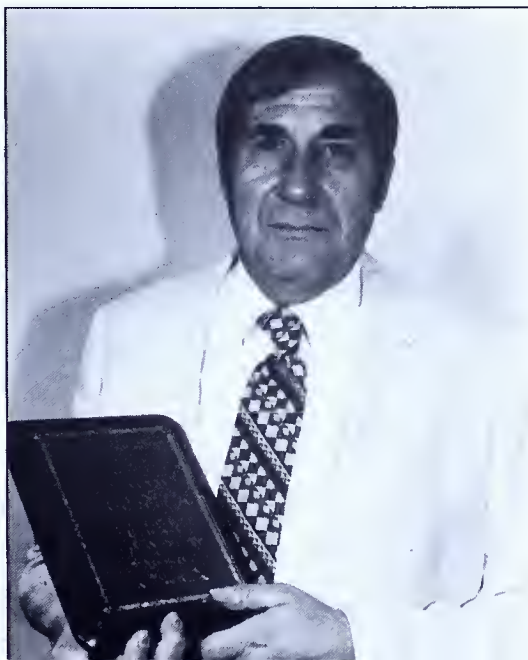
The flock flared hard but my first shot crumpled the lead bird. I hurried my second shot and cleanly missed the target. Regaining my concentration I knocked down the next to last bird in the flock.

As Tasha earned her keep I knew I wasn't alone. Just like the day I found the pit, I could see the faces of my by-gone companions. The old man nodded his approval while his aging Lab scrutinized Tasha's every move. The youngster two spots down beamed with enthusiasm and excitedly spoke of owning a 10-gauge when he grew up.

Even though I was still a bird short of the daily limit, I knew it was time to pack up. An extra bird would add nothing to the day.

As I pulled the decoys I was glad I took the risk of hunting this spot. Not because I took two birds but because I made a contribution to the tradition that the old pit stood for. The voices from the pit agreed as they whispered their approval.

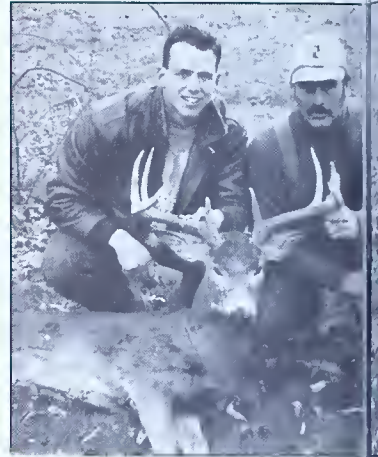
FRED HARTMAN, a PGC biologist who recently retired from the agency after 30 years of dedicated service, was honored by the Atlantic Flyway Council in recognition of his outstanding contributions to the waterfowl resources of North America. Hartman served on the council's technical section for 17 years and was the section's chairman from 1984 to '86. Among his accomplishments as chairman, Hartman coordinated a continent-wide symposium on wood ducks.



BUCKS & B



RICHARD URICK, left, Lancaster, went to Northumberland County, near SGL 165, and bagged this trophy on opening day last year. On the right, **CHRIS SNYDER**, Chalfont, shows his big 12-point to Frank Witczak, right, fellow member of the "Hit & Run Club" in Bucks County.



TOM CAMPBELL, right, Oakdale, found this, his first bear, sneaking through the laurel in Lycoming County. Hunting companions **Brian Rupnik**, left, and **John Broderick** helped Tom get his trophy out of the woods.



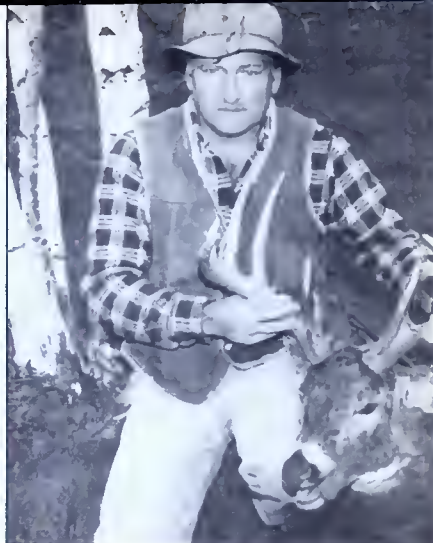
For hunter **J. BEN FINLAYSON**, right, Belle Vernon, 1990

was a great year. In addition to this big black bear, he also got a nice buck and a spring gobbler, all game lands in the Southwest Region. On the right, **HENRY, MARTIN** and **STEVE GEHMAN** each bagged a Susquehanna County whitetail by 10:30 of last opening day.



EARS

MIKE VETOVICH, Mars, dropped this 237-pound 10-point in Allegheny County last year. It's reported that the trophy rack measures, by Boone & Crockett standards, 157³/₈.



MARCIA BELDING, left, Waynesburg, found this, her first buck after several years of hunting, on a state game lands in Greene County. **KATHY WARNER**, above, caught up with this 125-pound 5-point in Luzerne County.



CLARENCE LESLIE, above, New Galilee, poses with his fifth consecutive Lawrence County buck. **BRIAN KOZLOSKI**, below, Scranton, used a Ruger 243 to drop this Bradford County 8-point.

TOM CAMPBELL, JR., McDonald, (no relation to the Tom Campbell on the preceding page) dropped this 200-pound trophy in Forest County on last year's opening day.





FIELD NOTES



Reunion

WYOMING COUNTY—While I was instructing the 21st WCO class, Trainee Christopher Heil approached me after my program. He said I'd checked him years before; I'd been uncertain whether he was old enough to hunt unaccompanied, which, as it turned out, he was. Chris said he'd asked me for a card that day 12 years ago. He said he'd kept my card with the idea he'd return it if we ever met again. And, with that, he gave it back. Pretty soon he'll be a WCO like me, and one day he could end up being my boss. I'm sure glad we parted on good terms that day. — WCO William Wasserman, Tunkhannock.



Crazy Pilot?

FULTON COUNTY—While assisting with firearms training for the 21st trainee class, we were buzzed by a light plane. I recognized the craft; every time I'd flown in that particular plane it had been piloted by WCO Dave Koppenhaver. One of the students looked up and said, "I wonder who that nut is." As the trainees take to their field assignments, some of them are going to run into that nut. He's been called worse. — WCO Mark Crowder, McConnellsburg.

In a Pickle

TRAINING SCHOOL—As trainees we're required to complete a series of bird walks, identifying and recording species we see. Early one Saturday my girlfriend joined me at a nearby lake; we saw a number of water birds, including a great blue heron. I tried to impress her with my newfound knowledge of birds. But I realized an error in pronunciation when she asked, in a serious tone, "Is that what they make pickled herring out of?" — Trainee Thomas M. Smith.

Covering Ground

BLAIR COUNTY—Back in May I tagged a bear WCO Tim Flanigan had captured in southern Bedford County. We released the bear on SGL 158 in northern Cambria County the same day. I later learned the male bear was killed in June on Route 40 in northern Maryland. In 24 days the bear had returned to his home territory, about 80 miles from the release site. — WCO Steve Kleiner, Altoona.

It's Up to You

WESTMORELAND COUNTY—Because of all the discussion surrounding turkey hunting safety, I began to survey local sportsmen's clubs, schools and hunter-ed classes. I simply take a wild turkey beard with me to programs and meetings, and I ask the audience what it is. In some cases, more than a third of the people have no idea, but when I ask how many of them hunt turkeys almost all the hands go up. Failure to identify one's target is a leading cause of turkey hunting accidents, and it's unnerving to think some hunters have no idea what their target looks like. It's up to knowledgeable sportsmen to educate these people; your help could save a life. — WCO J.V. Steffko, Greensburg.

Not Getting Through

MONROE COUNTY—At the request of a Stroudsburg apartment complex manager, I gave a program on the importance of leaving wildlife alone, and the ramifications of killing or injuring wildlife. Nearly all the parents in the audience responded positively to my presentation. One parent, however, said she believed the agency should be more concerned with deer poaching and other violations. “And what would the impact of a few dead animals really have on the environment anyway,” she said. You just can’t get through to everyone.—WCO David E. Overcash, East Stroudsburg.

Great Trapper

TIOGA COUNTY—While sitting in my living room and reading the latest issue of *GAME NEWS*, I saw a blur move across the rug and disappear behind the sofa. When it reappeared I saw it was a white-footed mouse. I set a trap at the corner of the sofa, and in less than two minutes I caught the critter. I reset the trap and again in less than two minutes I caught a second mouse. Now if I could only apply such expertise—and luck—to trapping nuisance animals such as beaver.—WCO John J. Snyder, Wellsboro.

Voice of Experience

ERIE COUNTY—While watching ducks last spring with a friend—former field officer Shayne Hoachlander—and his family, we saw two three-wheelers zip by. Shayne said the riders were possibly headed for a game lands road about a quarter-mile away, a road on which they aren’t allowed to travel. We checked it out and, sure enough, they’d ridden past the gate onto game lands. I was off-duty so I didn’t have my gate key, citations or any other law enforcement equipment, but Shayne and I walked in and caught the riders as they came out. I cited them, filing the citations later. Since that day, I listen even more closely to the voice of experience.—WCO Jack Farster, Albion.



Bird’s Eye View

LAWRENCE COUNTY—A young New Castle man got the opportunity to view wildlife from a slightly different perspective. While he was playing in his backyard, a screech owl alighted on the brim of his baseball cap. The owl abruptly lost its balance and hung upside down—right in front of the boy’s face. I don’t know which of the two was more surprised, but I imagine the owl got the ride of its life.—WCO Gene W. Beaumont, New Castle.

New Place

CLEARFIELD COUNTY—If you’re looking for a new place to hunt deer, try contacting farmers who suffer from deer damage. Look for the green signs posted by farmers who are signed up for the special deer damage hunt and ask permission to hunt there in the regular antlerless season.—WCO Colleen M. Shannon, Luthersburg.

Parcheesi, Anyone?

SOMERSET COUNTY—While working the agency’s display trailer at a trapper’s convention in Meyersdale, I watched a young boy riding on his dad’s shoulders. As they walked through the displays, I heard Dad explaining what each one was. When they passed me, the father said, “. . . and this is the Pennsylvania Game Commission.” Looking puzzled, the boy asked, “What do they play in there?”—WCO John G. Smith, Salisbury.

Really Big Rabbits

LACKAWANNA COUNTY—While picnicking with family and friends last summer I overheard my wife, Cheryl, say how she'd narrowly missed hitting a horseshoe rabbit. I knew she meant to say snowshoe, and so did she, but I could tell by the listeners' expressions that they were confounded. Knowing how quickly rumors spread when it comes to wildlife and the Commission, I set the record straight: there is no such thing as a horseshoe rabbit, and the agency is not conducting any secret crossbreeding experiments involving horses and rabbits. I think my wife needs a short vacation, without the kids.—WCO Timothy Conway, Dunmore.



Mad Dash

TRAINING SCHOOL—On a recent field trip to Middle Creek we were crossing a small stream when we heard a ruckus behind us. The entire class, lined up in alphabetical order, had unknowingly walked across an active yellow jacket nest. The bees must have lost their sense of humor by the time trainees Allegro through Wills trampled on them because their buzzing and stinging sent Dan Yahner flying through the brush and down through the stream. Dan's moral: "He who was last shall never be last again."—Trainee Frank J. Dooley.

New Method

SUSQUEHANNA COUNTY—WCO Scott Lorow and I recently learned a new way to live-trap river otters. All it takes is a big box trap, an enthusiastic landowner, road flares and lemonade. Mr. Hoening, Thompson, had an otter trapped beneath a large rock—a live trap in front of the entrance and other escape routes blocked with rocks. Scott and I used road flares to smoke out the animal. Mrs. Hoening provided much-appreciated cold lemonade as we worked in the searing sun.—WCO Charles J. Arcovitch, Kingsley.

Knowing the Difference

TRAINING SCHOOL—While home for the weekend several months ago, I gave my 4- and 8-year-old daughters a lesson on wild and edible plants. I showed them the wild carrot, or Queen Ann's Lace, and the poison hemlock. Both girls became fairly proficient at distinguishing the two. A week later they were visiting their grandmother when the 4-year-old climbed on the kitchen table and informed her grandmother that her beautiful centerpiece was full of poison hemlock. Now if we could only get her to learn her left shoe from her right.—Trainee D.S. Martin.

Involvement Brings Success

MERCER COUNTY—Thanks to a local resident who got involved, a pair of poachers will be prosecuted. After hearing a rifle shot near his home one night, the man went out and got the license number of a car at the scene. He also talked to, and got a description of, the driver. A freshly killed deer was recovered in a nearby field. An investigation resulted in citations filed against two men for illegally killing deer. Without the resident's involvement, the violation would probably have gone undetected. His actions exemplify the SPORT program and he is to be commended.—WCO Donald G. Chaybin, Greenville.

Is That All?

TRAINING SCHOOL—To give you an idea of how extensive a WCO's training is, here's a list of some of the subjects we're required to know: game law, constitutional law, rules of criminal procedure, dendrology, bird and small mammal identification, boating and water safety, self-defense, firearms training, licensing, permitting, information and education, youth training, Hunter-Trapper Education, and land management practices. And we're only halfway through.—Trainee Steven Bernardi.



With Open Arms

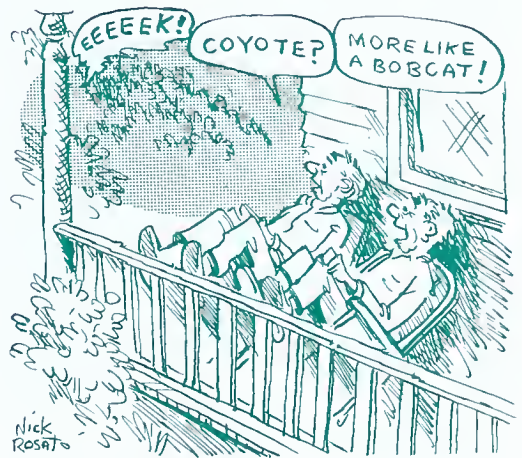
WAYNE COUNTY—Last spring I got a call from a concerned family about a nest of hawks under their roof eave. The family had free-ranging chickens and were afraid the hawks would kill the peeps. The hawks were kestrels, and they had four young in the nest. Examining pellets from the nest, I found short gray fur, seeds and insect shells—no evidence of peep remains. While I was explaining how the fur came from mice, the female kestrel returned to the nest with a small snake. That clinched it: the hawks were welcome as long as they ate snakes and mice.—WCO John C. Shutkufski, Damascus.

In Debt

CHESTER COUNTY—Hunters and trappers are often intimidated when confronted by a WCO, so I generally try to make them feel at ease. I know of one trapper, though, who will always be glad to see me. I was checking the man's sets one day, and I came upon him and a beautiful red fox he'd just caught. While we talked, the fox gained its feet and took off. Taken by surprise, all the trapper could do was throw a trowel at the departing furbearer. Not wanting him to be cheated out of his prize, I went after it. When I returned with the red fox in my hands, I told the trapper he owed me one.—WCO William C. Ragosta, Nottingham.

Seeing the Sights

DAUPHIN COUNTY—While traveling SGL 210 one afternoon, I came across two broods of turkeys, a lone gobbler, two grouse broods, a sow bear with three cubs, and several deer. All that occurred within a mile. A week later I was back where I saw the bears, and I spotted an immature bald eagle.—WCO Scott R. Bills, Halifax



Strange Noises

SCHUYLKILL COUNTY—If you live in the Red Mountain vicinity, be assured the strange screaming noise you heard on the top of the mountain one hot July day wasn't a coyote or a bobcat. It was only the local WCO trying to make a "bee line" for his vehicle after finding an unfriendly nest of yellow jackets.—WCO Stephen S. Hower, Tremont.



If Mice Had Wings

TRAINING SCHOOL—During our extensive educational training, we're responsible for learning a variety of subjects. One day we studied mammals under the tutelage of Dr. Kirkland of Shippensburg University. Trainee Mark Allegro was standing in front of a display of assorted mice and shrews, looking perplexed. He looked at me and asked, "Which one is the tufted titmouse?" Well, Mark, it's good you're going to Philadelphia.—Trainee J. Christopher Heil.

Ask Permission

LANCASTER COUNTY—Every year we receive complaints about pets getting caught in traps set within 150 yards of occupied buildings. Please, when setting traps, respect safety zones and obey all other rules. The best way to promote trapping is through ethical conduct afield.—WCO Dennis L. Neideigh, Salunga.

Heroic Sacrifice

TRAINING SCHOOL—Because I know many fellow trainees submitted "Field Notes" about my encounter with a swarm of yellow jackets, I thought it my duty to set the record straight. The truth is, in an incredible act of heroism I threw myself on that "live" nest of angry insects—suffering multiple stings—to allow my classmates to escape.—Trainee Daniel S. Yahner.

Not Just at Night

MONTOUR COUNTY—Turn In A Poacher was the message printed on a T-shirt I saw. That got me thinking: How many people believe poaching takes place only at night through the use of a light? It also happens during hunting seasons and daily hunting hours. Poaching is the illegal killing of game and non-game. While afield this season, if you see an individual take more than his or her limit of game, or kill game out of season, turn that person in; be a SPORT.—WCO Peter F. Aiken, Watsonstown.

Dangerous Chemicals

LYCOMING COUNTY—I'm currently involved in the investigation of a substantial bird kill—more than 200 birds, including Canada geese, grackles and red-winged blackbirds. It'll be some time before I determine whether the kill was accidental or intentional, but this much I know already: chemicals are playing more and more of a part in our lives, and too many people are unaware of how dangerous they are. Perhaps Rachael Carson's *Silent Spring* should be required reading for today's society.—WCO Dan Marks, Montoursville.

Maybe, Maybe Not

BRADFORD COUNTY—Working the agency's booth at local fairs gives WCOs the opportunity to field all kinds of questions. Our theme for the Troy fair was the bald eagle, and one young lad, not more than four years old, was just full of questions. After I answered many questions from the boy, he fell silent for a moment. Then he asked, "Are you an endangered person?" I sure hope by that he meant a person who handles endangered species.—WCO Richard Larnerd, Warren Center.

1991 PENNSYLVANIA WATERFOWL ZONES



THE ONLY CHANGE in Pennsylvania waterfowl zones for this year is in the Northwest Zone. All of Erie (except that portion included in the Lake Erie Zone) and Crawford counties and all of Mercer and Venango counties north of I-80 are now included. Prior to this year, the Northwest Zone was bounded on the east by the Allegheny River. Seasons and bag limits for 1991 are similar to last year's, with the exception that black duck seasons are now the same as they are for other ducks. Goose hunters in the South Zone will enjoy a new, split-season format.

1991 Waterfowl Seasons and Bag Limits

THE EFFECTS of a prolonged Canadian drought and resulting depressed waterfowl populations have combined to impact the 1991 seasons and bag limits established by the Game Commission, within a framework mandated by the U.S. Fish and Wildlife Service.

Lingering drought conditions spanning more than a decade in traditional Canadian "duck factory" regions dictate conservative season lengths and daily and possession limits. As a result, Pennsylvania is once again limited to 30 hunting days for ducks and a daily and possession limit of three and six birds. Conservative federal restrictions were put in place in 1988. Prior to that, waterfowlers had 40-day duck seasons and a daily bag limit of four birds.

Drought conditions improved somewhat in critical prairie pothole breed-

ing grounds of central North America this past spring. However, biologists say it may take several years for those areas to recover from an extended lack of rainfall and resulting destruction of waterfowl habitat. Besides habitat lost as a direct result of the drought, as soon as the critical breeding areas dried up



they became the focus of intense agricultural activity.

This year, brood and nesting indicators increased slightly (about 3 percent) over 1990 levels, but remain well below long-term average. The duck population is about 19 percent below the 1955–1989 average.

Once again, in the Atlantic Flyway, ducks are at adequate, stable levels from Pennsylvania north. Areas to the south and west however, show fewer birds due to drought and habitat loss.

Pennsylvania waterfowl hunters will note a major change in the makeup of duck hunting seasons this fall. In past years black ducks were covered by special seasons within waterfowl zone hunting dates. In an effort to make regulations less confusing, black duck seasons will be the same as those for other duck species within the state's four waterfowl hunting zones.

"Black duck populations are relatively stable within the flyway," said Calvin W. DuBrock, director of the Bureau of Wildlife Management.

"Waterfowlers will be able to harvest black ducks during the entire season."

Goose hunters in the state's South Zone will have a new, split season format. The move to a split season was made to answer hunters' requests.

Mounting nuisance problems caused by an increasing resident goose population had prompted the Game Commission and the Atlantic Flyway Council to once again request a three-bird daily limit in northwestern counties. The request was denied by the Fish and Wildlife Service.

The Northwest waterfowl hunting zone has been revised to include all of Erie (except that portion in the Lake Erie Zone) and Crawford counties and all of Mercer and Venango counties north of Interstate Route 80. Prior to 1991, the Northwest Zone was bounded on the east by the Allegheny River.

Daily and possession bag limits remain basically the same as in 1990. However, limits for Canada geese vary from zone to zone, as required by the Fish and Wildlife Service.

1991 Pennsylvania Waterfowl Seasons

LAKE ERIE ZONE

Ducks, Sea Ducks, Coots, Mergansers—Nov. 11 to 30 and Dec. 19 to 28.
Canada Geese—Nov. 9 to Dec. 28.

NORTHWEST ZONE

Ducks, Sea Ducks, Coots, Mergansers—Oct. 14 to 19 and Nov. 11 to Dec. 4.
Canada Geese—Oct. 7 to Dec. 14, except Erie and Mercer counties, Oct. 14 to 29 and Nov. 11 to Dec. 14.

NORTH ZONE

Ducks, Sea Ducks, Coots, Mergansers—Oct. 14 to 26 and Nov. 4 to 20.
Canada Geese—Oct. 7 to 26 and Nov. 4 to Dec. 23.

SOUTH ZONE

Ducks, Sea Ducks, Coots, Mergansers:—Oct. 21 to 26 and Nov. 25 to Dec. 18
Canada Geese:—Oct. 14 to Nov. 4 and Nov. 25 to Jan. 11, except Mercer County south of Interstate Route 80 and Butler County, Oct. 14 to 29 and Nov. 11 to Dec. 14.

Canada Geese:—That area east and south of the following boundaries: Interstate Route 83 from the Maryland line to Harrisburg, I-81 north from Harrisburg to Route 443, Route 443 from I-81 to Lehigh, Route 209 from Lehigh to Stroudsburg, I-80 from Stroudsburg to the New Jersey line; also on and within 25 yards of the Susquehanna River from Harrisburg to Northumberland—Oct. 14 to Nov. 4 and Nov. 25 to Jan. 31.

ALL ZONES

Atlantic Brant:—Nov. 25 to Jan. 11.

Snow and Blue Geese:—Oct. 17 to Jan. 31.

NO OPEN SEASON: ALL SWANS and HARLEQUIN and CANVASBACK DUCKS

PYMATUNING, MIDDLE CREEK

Pymatuning Wildlife Management Area shooting dates—Oct. 7 to Dec. 14; **Middle Creek Wildlife Management Area** shooting dates—Oct. 14 to Nov. 4 and Nov. 25 to Jan. 31, except closed Dec. 26.

WATERFOWL SHOOTING HOURS

One half hour before sunrise to sunset.

EXCEPTIONS:

8 a.m. until sunset in the Northwest and North Zones on Oct. 7.

Controlled shooting sections of Pymatuning Wildlife Management Area: 8 a.m. until 1 p.m. on Oct. 7; on other shooting days (Monday, Wednesday, Friday and Saturday), one-half hour before sunrise to 1 p.m.

Controlled shooting section of Middle Creek Wildlife Management Area: one-half hour before sunrise to 1:30 p.m. on Mondays, Tuesdays, Thursdays and Saturdays.

NONTOXIC SHOT REQUIREMENT

Nontoxic (steel) shot must be used to hunt waterfowl in Pennsylvania.

BAG LIMITS

Ducks:—3 daily, 6 in possession; daily limit may not include more than 1 hen mallard, 1 black duck, 1 pintail, 1 mottled duck, 1 fulvous tree duck, 2 wood ducks, 2 redheads.

Possession limit may not include more than: 2 hen mallards, 2 black ducks, 2 pintails, 2 mottled ducks, 2 fulvous tree ducks, 4 wood ducks, 4 redheads.

Atlantic Brant:—2 daily, 4 in possession.

Coots:—15 daily, 30 in possession.

Mergansers:—5 daily, 10 in possession; not more than 1 hooded merganser daily, 2 in possession.

Snow/Blue Geese:—5 daily, 10 in possession.

Canada Geese:—3 daily, 6 in possession.

EXCEPTIONS FOR CANADA GEESE:

2 Canada geese daily, possession of 4 in Butler, Erie and Mercer counties; 1 daily, 2 in possession in Crawford County.

1 Canada goose on the controlled hunting sections of the Pymatuning and Middle Creek Wildlife Management Areas.

1 Canada goose daily, possession limit of 2 on Oct. 14–15 in the 90-day zone in southeastern Pennsylvania.

Outstanding Deputy Wildlife Conservation Officers—1990

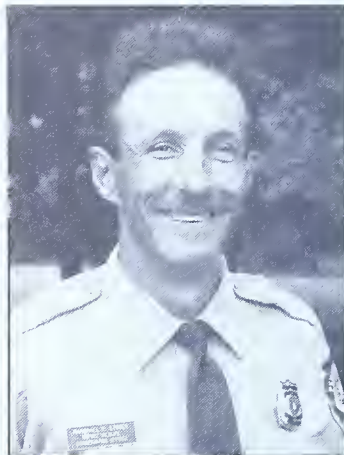
The deputies shown, one from each field region, have been recognized for their outstanding contributions to the programs of the Pennsylvania Game Commission during the past year. Their efforts are appreciated.



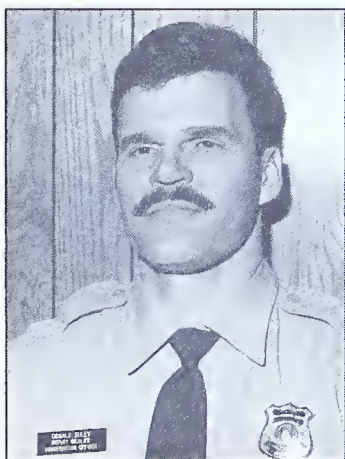
Donald R. Foltz
Centerville
Northwest Region



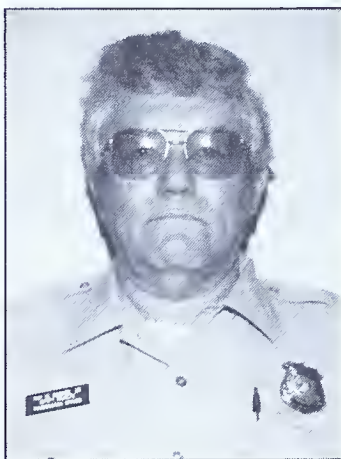
L. Paxton Whipple
Tioga
Northcentral Region



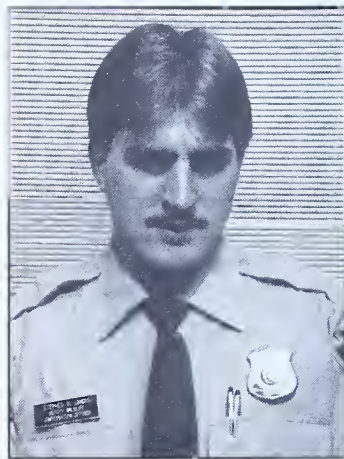
Marshall E. Stover
Mehoopany
Northeast Region



Donald Suley
Pittsburgh
Southwest Region



Ray M. Hummel, Sr.
Selinsgrove
Southcentral Region



Stephen R. Landis
Philadelphia
Southeast Region

Adventures in Dining

NOT ALL THE happy and harrowing tales of the hunt take place in the woods and fields. A hunter still has to get there and back again, and he has to eat. Unless he relies on home-packed sandwiches or can ignore the growls and protests of an empty stomach, he'll be visiting out-of-the-way diners and back road luncheonettes. That's where the adventure begins.

Pennsylvania has gourmet five-star restaurants, and its share of starless ones. As a hungry hunter, I was often grateful just to find a place open that would serve me at the odd hours I needed food. Some were dismal disasters, memories of which have mercifully faded. One lesson I learned the hard way was never eat gray eggs, and beware of lumpy milk. I know exactly what is meant by eating at, and with, a "greasy spoon."

Stopping for a bite "on the way" is always a gamble, and like all games of chance, sometimes you win and sometimes you lose.

I like to remember the times I was an unexpected winner. The test of any diner is how good it is at preparing the hunter's lunch, that old standby: a hamburger, a cup of coffee and a piece of pie. I've eaten the proverbial "BB burger" on a stale bun, oil can lube for java, and cardboard pie. I've also lucked into a hamburger so big and juicy it hung over the side of the plate-size bun. Two grown men could order one to split and go away stuffed, and often did.

I've always shied away from the diners that serve mainly fried foods, because I have the suspicion everything comes prepackaged from the freezer and drops into the fryer. Hunters have to be tough, and sometimes that's all that's available. That's why I keep a supply of antacid in the glove compartment.

Homegrown Pennsylvania cooking is still alive in the countryside. A back



ALTHOUGH STEINER has had the misfortune of eating in some poor restaurants, she likes to remember the good ones. Good eateries can turn even the worst hunting days into pleasant memories, fine food saving the day for tired hunters.

road restaurant's weather-beaten exterior and well-worn interior decor shouldn't fool you. The place may be old, but if it's clean, and there's some little spot of owner pride—like a bunch of garden flowers in a 10-cent vase at each battered booth—you can bet the food will be good.

I'm thinking of one place in particular, where the scrubbed linoleum of the

Another View...

by Linda Steiner

floor had been worn through by countless booted farmers, truckers and hunters, and the painted ceiling was a bit saggy. The elderly waitress/cook/proprietor took our order and the local folks included us in the conversation about the weather and the winter it promised to be.

The pie had a melt-in-your-mouth crust, the apple filling was fresh and warm, and the helping of hand-dipped ice cream to make it a la mode was generous to overflowing. Since that discovery, the restaurant and “Granny’s” pies have saved many a luckless, cold, and miserable hunting day from total disaster. If she knew what it meant to people like us, “Granny” would double the price.

French Fry Heaven

Another lunch spot we found while hunting was a french fry lover’s dream, the potatoes crispy golden brown, a whole cookie tray load for \$1.50. A friend who is a french fry fancier was so impressed he had me take a picture of him and his heap of fries so the folks back home would believe him.

On the road, I also learned something about making better french toast by adding a pinch of cinnamon to the batter. The place also served excellent fresh sausage, and we found we could buy a little extra from the kitchen, if we piled on the compliments and did a bit of wheedling.

When you stop to eat in the country, people in the diners understand hunting. They don’t take exception when you walk in with a rumpled wool shirt and muddy boots. They don’t look surprised to see a face painted black and brown and green. Even the pretty young waitress will smile and ask if you’ve had any luck after deer or turkeys.

Hunters may still be wearing their belt knives and no one bats an eye. I always think what a commotion that would start at the average restaurant in my hometown near New York, if a rough-looking fellow with a blackened face and a knife walked in and asked to

be served. It’s nice to know the frontier, and a trusting spirit, are not entirely dead.

When in hunting togs, I prefer to go to the simpler restaurants that welcome me. But sometimes the only choice was to go swanky, or not eat at all. Then I’d brush off whatever dirt, mud, and briars I could, wish for a comb and a bit of lipstick, and bull it through. I hoped the maitre d’ would mistake my bravado for the confidence of an eccentric millionaire who could afford to flaunt convention. Or maybe the head waiter just figured if I wasn’t a bum, I must be a big tipper.

When our group ended up at a fancy restaurant on the way home from hunting, we always ate well, steaks and dessert and such, and it’s true the gratuities we left were substantial. I don’t know if they were big by way of apology, because of the bill, or because we enjoyed playing to the hilt the role of rich oddities.

If you pack your own sandwiches and never visit the local eateries, you’re missing some of the flavor of the hunting trip. By eating where the natives hang out, you’ll learn a lot about the area. You’ll get to meet the people who live there, some of whom can steer you to good hunting opportunities. You’ll hear that “Old John Smith’s been seeing a flock of gobblers in the far corner of the pasture nearly every evening.” Old John might even tell you himself and ask you to come up to his farm and take a bird.

By becoming a hunting season institution at the country diner, you may even get a break on the price of the food. My gang hunted an area and ate at its only restaurant nearly every weekend in the fall. When buck season rolled around, the place raised its prices so it could make a little money on the rich city hunters. But when we came in, the waitress handed us a menu with the old prices, whispering, “We don’t charge extra for neighbors like you.” If that compliment’s not an acceptable happy ending to a hunting day, I don’t know what is.

AUTUMN'S RADIANT SPLENDOR has now given way to a more somber and muted landscape. Shades of gray and brown dominate the ridges and woodlots. Only the oak trees still cling to their foliage, brown and withered though it may be.

November is a hunter's month. Small game, waterfowl and turkey seasons are followed quickly by the whitetail openers. This is perhaps the month with the widest range of sporting opportunities.

It is also the month that generates sportsmen's fondest memories. Wisps of wood smoke curling from a remote cabin's stone chimney come to mind. A month for reflection on seasons past and the season yet to come; a hunter's month most certainly, and a WCO's month, too.

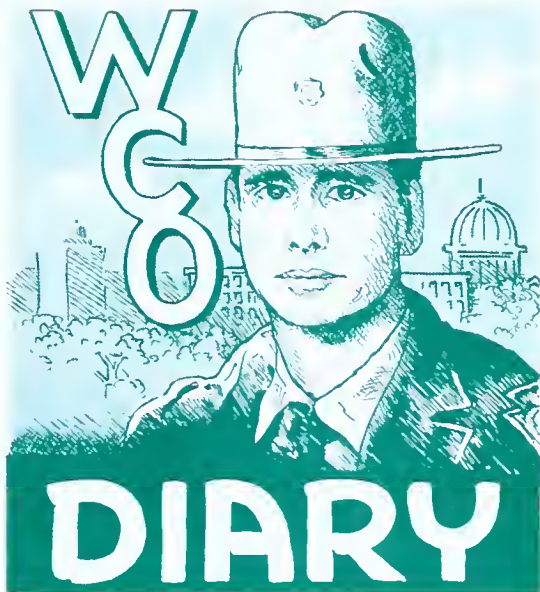
Hectic would be an apt description. Grab your gear, a warm coat and a couple of hot Thermos bottles—we're on our way.

NOVEMBER 3—November marks a dramatic upturn in the number of deer killed on commonwealth highways. Mating season, coupled with increased human activity in wooded areas, prompts the deer to be on the move, crossing busy roadways during their travels. Having to contend with this sudden increase in roadkills further complicates an already brimming patrol schedule.

After disposing several deer, Deputy Frank Kolaric and I visit the homes of two individuals suspected of committing an outrageous safety zone violation. Several days earlier, a young couple contacted me about a disturbing encounter with a pair of waterfowl hunters.

The couple were enjoying breakfast in the atrium dining area of their riverfront home along the Susquehanna. While they ate, a lone goose swam to shore, entered their yard, and took refuge in their shrubbery. High water enabled a pair of camo-clad hunters to guide their motorboat up to the couple's yard in pursuit of the goose. As the nimrod in the bow shouldered his shotgun, the young lady quickly opened a window and screamed a warning not to shoot. Ignoring her plea, the slob sent a shot charge toward the goose and the house. This most inconsiderate incident occurred a mere 30 yards from the couple's breakfast table. Needless to say, I was anxious to search for these violators.

A boat registration led us to one suspect's home in Highspire. After a brief



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

period of questioning, the suspect confessed to the episode and also identified his partner.

Frank and I resume our patrol of SGL 246 in Londonderry Township. It's almost 2 a.m. when we check an apparently drunk gent dozing in the parking lot. Before we can arouse the fellow, a loud blast from a high-powered rifle grabs our attention. The shot is obviously close by, and we scramble to our idling patrol vehicle. A rapid scan of the area is foiled by too many late night travelers sharing the rural roads. The occupants of the only suspicious vehicle we encounter are preoccupied in a romantic interlude. We were so close, but we're unable to find anything.

Jacklight patrol can be quite frustrating. A good example occurred just the evening before, when deputies Larry McCarter and Bob Schmitt were stationed in the Hershey area. Just before 11 p.m. they heard the unmistakable crack of a 22. Within minutes they arrived at the scene, only to find fresh blood and hair on the roadway where someone presumably had loaded a deer. So close, yet so far.

NOVEMBER 6—I've been invited to address a breakfast gathering of the East Shore Kiwanis in Linglestown. While the audience dines I narrate a slide show that highlights the Game Commission's



Question

When I arrived at camp the night before bear season I discovered I had forgotten my bear license. Because I had written down the license number, would it have been permissible for me to hunt with a homemade license?

Answer

No. It's unlawful to duplicate, reproduce or forge any hunting or furtaking license.

organization and responsibilities in wild-life management.

Later, I swing by area district justice offices to file several citations before departing for my regional office in Reading. The Commission divides the state into six regions, and administers each area from a centrally located office. My district lies within the boundaries of the Southeast Region. Therefore, I regularly travel to Reading for equipment and supplies, administrative and supervisory meetings, and to attend training seminars.

The sun begins to set as I return to my district. While crossing the Lebanon-Dauphin county line, the radio dispatcher advises me of a local hunting accident. The victim has been taken to Polyclinic Hospital in Harrisburg. Within minutes I arrive and locate both the victim and the offender in the emergency ward. Learning that the victim's wounds are superficial, I'm able to interview the offender. He gives his rendition of the mishap as I scratch notes and complete forms.

The pair have been hunting companions for several years, and today they opted for a late afternoon squirrel hunt atop Third Mountain in Middle Paxton Township. They were enjoying a fine day afield with plenty of opportunities to fill their game bags. Near the crest of the ridge, the duo split, planning to regroup at the summit.

The offender soon climbed above his buddy and reached the top first. Waiting there, he saw several squirrels scampering about the brush ahead of him. His pulse quickened with each new opportunity to bring his quarry to bag.

A sharp snap of some twigs to his right drew his attention as yet another squirrel presented a shot. At least he thought he saw a squirrel moving through the brush.

His 12-gauge's shot string struck his hunting companion in the face, neck and shoulder. Fortunately, the victim caught only the fringes of the pattern. If the shot had been placed differently, given the 10 yards that separated the two, the results could have been fatal.

As I interviewed this fellow, I could not help but think that we had met before. When I inquired about a previous meeting, his gaze dropped toward the floor, and he responded with a sheepish nod.

"Yeah, we met a couple of weeks ago," he said. "I was with my son in your hunter-ed class. You know, I never would've thought somethin' like this could've happened to me."

As I concluded the interview, it became obvious that the offender forgot one of the primary rules of safe hunting—*be sure of your target!* This chap learned that the hard way, but fortunately the victim would be all right.

NOVEMBER 17—Each November, officers are required to count the number of Canada geese seen on the ground in their districts. The census is designed to help identify trends in the number of birds now delaying or foregoing their ancient and traditional fall migration patterns. Southern states are noting a decline in winter flocks, while northern climes are seeing an increase in overwintering birds.

Today, I spend a portion of my time tabulating the birds seen loafing about their regular haunts. The count soon climbs above 1,000 as I jaunt from pond to stream to river and back.

After disposing of several more roadkills and other mundane matters, I'm dispatched by radio to respond to yet another hunting accident. I'm to report to the scene at Manada Gap in East Hanover Township. The State Police are reported to have the offenders in custody.

As I round the mountain pass, a trio of troopers is escorting two young men clad in blaze orange. After formal introductions, I'm briefed by Trooper Glenn Mar-

tin, a veteran detective. The details sound all too familiar, and a written statement offered by the shooter concludes the mishap.

The victim, now enroute to the hospital, was also shot in mistake for a squirrel. He had been clearing a place for his portable tree stand in a towering hemlock. The offender and his companion were hunting along the ridgeline when they noticed movement in the tree ahead. Rather than positively identifying his target, the offender shot at the victim's moving arms and head.

The results were more severe this time—the victim fell nearly 30 feet to the ground. The victim was stabilized enroute to the emergency room, but later surgery failed to save his right eye. Nearly 80 shot pellets remained imbedded in his face, neck and eye.

Hunting accident investigations are typically long and tedious. Details are carefully compiled, and evidence must be preserved. An officer must prove carelessness and/or negligence for successful prosecutions of these offenses. Fines can be substantial, and a criminal record will follow the offender the rest of his or her life.

NOVEMBER 19—After a long day afloat checking waterfowl hunters on the Susquehanna, I'm summoned to Harrisburg General Hospital to investigate still another hunting accident.

Two youths had been squirrel hunting in a suburban area; one had no license and hadn't attended the required hunter-ed class. In fact, the boy was totally unfamiliar with firearms. They spotted a squirrel in a large white oak, and the pair split up—one on each side of the tree. The squirrel ran down the tree to escape, and the inexperienced youth opened fire. One of his shots struck his partner in the leg.

Luckily for them, a rabbit hunter heard their cries for help and came to their rescue.

This accident, victim shot in line of fire, is the third in two weeks. I'm concerned. Deer season is approaching, and I cross my fingers and hope hunters will exercise their best judgement in the weeks to follow.

NOVEMBER 22—Thanksgiving, a traditional day of family feasting, is also a traditional hunting day as well. Officers

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; Northeast, 1-800-228-0789; and Southeast, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

around the state typically plan to work a full shift on this holiday. I, too, find myself patrolling into the wee hours of the night.

NOVEMBER 24—The waves splash the boat's hull, and the resulting cold spray on my face serves as a predawn eye-opener. I arrive at my predetermined spot well before the first rays of sunlight filter through the skyline. I'm going to spend the bulk of the morning on the head of this Susquehanna island, hunkered in the mud, squinting into the eyepiece of my spotting scope. I've chosen this spot to watch carefully several waterfowl hunters in the surrounding blinds. Reports from sportsmen, together with my own observations, make it necessary that I watch these particular groups closely. They've reportedly been gunning while under power, shooting over their limit, and using lead shot.

A long vigil begins as I wait and watch. A queer feeling stirs when I view the jagged skyline of Harrisburg's high-rise buildings reflected in the murky waters at river's edge. Imagine, waterfowl patrol virtually in the shadow of the capitol building's dome. A far cry from my earlier years prowling backcountry creeks and sloughs. Hours of surveillance produce nothing, and I quietly pack my gear and return to shore.

NOVEMBER 26—Opening day of buck season—perhaps one of the biggest events in Pennsylvania. It's a social phenomenon as well—numerous schools and workplaces close for the big day.

Bear hunters, if you're fortunate enough to get a bear this year, please take care of its skull. Every year some irreplaceable trophies are needlessly damaged by butchers and taxidermists who don't realize the trophy significance of bear skulls. Don't let it happen to yours. Remind whoever processes your bear that its skull is not to be cut.

The white-tailed deer kindles fond memories for avid outdoorsmen and women. Throngs of orange-clad hunters trek to their favorite stands in the early morning hours before daybreak.

My day also begins well before dawn. Several recently built tree stands were found on SGL 211 near the top of the Second Mountain. I plan to visit these spots at first light in hopes of meeting the industrious carpenters who built them. I'm in luck; I see the shimmer of flashlights coming from the tree stands as I approach.

Permanently constructed stands or stands that damage the tree are not permitted on state land. Additionally, stands erected on private property require advance permission from the landowner.

Patrolling on foot, I'm able to contact many sportsmen throughout the morning hours. The cool, crisp day is filled with bright sunshine flooding the forest floor—a splendid day to be afield. Hunting pressure is unusually high, and many good bucks are harvested. I enjoy the reaction of successful hunters when I show up. Typically, they are pleased to see officers afoot in the woods. Of course, there are those individuals who aren't so happy to see us.

A radio call requests my assistance to handle an injured deer on a roadway along the Blue Mountain in Lower Paxton Township. As I arrive, I suddenly recall the salt blocks I'd found prior to the start of the archery season. Repeated visits during October had found the stand empty. With the passing of small game season, I almost forgot about the baited area. Since the blocks are located just down the road, it's worth a check today.

The area appears quite different since my last visit. Not only have the leaves fallen, but so have the trees. It's been timbered since my last visit, but the tree with

the stand has been spared. In it a bright orange cap and vest shine like a beacon, serving to guide me through the twisted slashing. The salt blocks have conveniently been spared from the harvest as well.

While I'm discussing the infraction with the hunter, two nearby shots pierce the afternoon air. Within minutes another hunter appears, struggling with a plump 5-point at the end of his drag rope. I learn the pair are father and son, and they live in the contemporary home just visible through the trees. I also note that the son's trophy has no tag. We reconvene our conversation at the house where the pair promptly settle on field receipts.

More foot patrol leads me east along the jagged spine of the mountain ridge. My journey continues over the top and down the north side to East Hanover Township. Much of the forest land is privately owned. Hunter pressure continues to decline as dusk rapidly approaches.

An odd clearing captures my attention. The freshly cut opening is unmistakably long and narrow, a "shooting lane." Sure enough, as I gaze down the lane, a brushy lean-to appears some 200 yards in the distance. Faintly, I can discern two orange figures moving about within the structure. As I approach, I can see more lanes radiating from the blind like spokes from the hub of a wheel.

"Good evening. Having any luck today?" I inquire.

The pair, a man and woman, don't answer. They sit staring defiantly at me. The man shuffles about and quickly produces a single action revolver from under his orange coat.

"I don't appreciate ya bein' here," he says defiantly, now brandishing the firearm. "This here is posted ground!"

After I explain who I am, and what I'm doing, the pair continue to be less than impressed with my presence. While never pointing the gun at me, their menacing behavior is quite suggestive. I'm finally able to check their licenses and find that the woman, his wife, had tagged a 4-point earlier in the day.

As I leave, a sixth sense tells me to remain just out of sight for awhile. I suspect the area may be baited. I'll wait until they leave before I again step into one of the shooting lanes for a better look.

The stately timber is soon engulfed in a shroud of darkness; 45 minutes have passed since legal quitting time. I again

approach the blind, and much to my surprise another hunter has taken a vigil inside the lookout.

"Rather late to be huntin' isn't it?" I ask.

"Uh, I dunno," came his reply. "Guess I just forgot how late it's gettin'." I check his license and learn that he's the son of the gent I had encountered earlier.

"Nice deer your dad got this morning," I suggest, hoping that this fellow will play into my hand.

"Yeah, he got it around 10 o'clock," the son offered.

"Oh really! Why then is your dad still out huntin' around dark if he already got his deer?" I ask.

The young hunter didn't respond except for an "oops" look written across his face. I suggest that we walk down to his father's house and sort this thing out.

After a lengthy interview, I find two deer hanging in the shed—both sporting tags from the men's wives. A confession reveals that one of the deer was shot earlier by the son, and he conveniently attached his wife's tag to the 3-point. The dad, however, would not budge from his claim that his wife was the successful hunter.

Later the deputies and I gather to compare notes. They too have been quite busy with several investigations and complaints. One bright note for the day; no hunting accidents were reported. We turn in for a welcome night's sleep.

NOVEMBER 30—The week continues at much the same pace. Investigations, patrols, complaints and calls. The deputies and I are constantly on the move.

A call tonight alerts me to some spotting and shooting hear the old Derry Township landfill. The caller watched a truck cruise the fields behind his house.

A spotlight searched the soybean stubble, and soon several shots shattered the night's silence. No other details were available, but I decide to investigate.

After patrolling the area for a short while, I notice a vehicle spotting midway back a little-used farm lane. I approach unnoticed until I engage my red light. Just like a frightened alley cat, the car speeds off—spewing a stream of dust and stones. I swing around, flick on the siren, and quickly catch the speeding sedan. The old four-door begins to slow as the occupants realize that their old jalopy isn't going to outdistance me.

As I approach the passenger side, I immediately notice a rifle straddling the seats. Cautiously, I remove the scoped pump-action and eject a live 30-06 cartridge from the chamber.

After I secure the two occupants, deputies Larry McCarter and Bob Schmitt arrive, along with Derry Township police officer Dan Hess. As I ink the necessary paperwork, I ask Bob to retrieve the spotlight from the would-be poachers' car. Bob begins to chuckle when the hapless pair give him the "what spotlight?" routine. Bob casually points to the severed wires dangling from the car's cigarette lighter.

"Oh, that light. We threw it out the window back the road a ways," came their reluctant reply. In their hasty attempt to get away, the pair weren't able to unplug the spotlight from the tight fixture. Instead, they simply tore the cord in their frustration.

Whew! With buck season only a few days old, I hope you're able to keep the pace. Join us next month as we encounter more surprises in our final journey across this suburban district.

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Thornapples



Chuck Fergus

WHEN IT COMES to watching wildlife, it usually takes many hours to find an animal to study, then more hours in a cramped blind or hiding place, enduring rain, cold, heat and biting flies, watching the object of your interest. Sometimes, though, you get lucky. One day in April, I looked up from my writing to see a broad-winged hawk flash through the leafless woods. The hawk landed in an oak tree. It had a stick in its beak. It set the stick in a crotch in the tree.

Sleek & Handsome

Over the next two weeks the hawk and its mate brought more sticks, piling them on top of an old crow's nest, where a thick bough split off into three branches about 30 feet up. I kept binoculars on my desk. The hawks were sleek and handsome, a bit smaller than crows, with pale cinnamon-barred breasts, black-and-white banded tails, reddish eyes, hooked black-and-yellow beaks, and yellow feet.

I would see them daily for a while, and then not for a few days, and I wondered if they would actually lay eggs in their sloppy nest or if it were only one of several they were considering. In early May, on a drizzly day when the woods echoed with bird song, the crested flycatcher's *wheep*, the nut-hatch's *yankyank*, the wood thrush's *ee-o-lay*, the towhee's *drink-your-tea*,

a grouse drumming and a turkey gobbling, one of the hawks sat on the nest for much of the morning: Had the female laid her first egg and begun incubating it?

I decided the nest was a going concern. I got out my spotting scope and set it up on a tripod behind my desk (rather a cramped space, which made it hard for me to open my bottom drawer). As I worked on various projects over the next three months, I would periodically look at the nest, and, when I noticed something interesting, get up and peer through the spotting scope. For wildlife observing, these were comfortable conditions indeed.

May 12. At 6 a.m., just as the sun is coming up, one of the hawks (the female?) is sitting. Banded tailfeathers jut up on one side of the nest, the beaked head on the other.

May 14. In the strengthening sun, the leaves are really pushing out. Fortunately there's a clear line of sight from my window to the nest. Through this little tunnel between maples, oaks and black gums, I can focus on the curved



beak and the dark immobile head. When the leaves are fully expanded, it will be a lot harder to keep track of the hawks' comings and goings.

May 20. The female has been sitting religiously for over a week. This afternoon a bird—a cuckoo, I think—flies toward the nest, then veers off suddenly and flees.

June 5. I am back from a week in New York City, and it feels great to look out not on asphalt and brick and glass, but on leaves and bark and flower-budded mountain laurel. A pair of small drab songbirds flutters in great agitation around what appears to be an empty nest (at least with no adult sitting on it). Does this mean the young have hatched and the parents are out hunting?

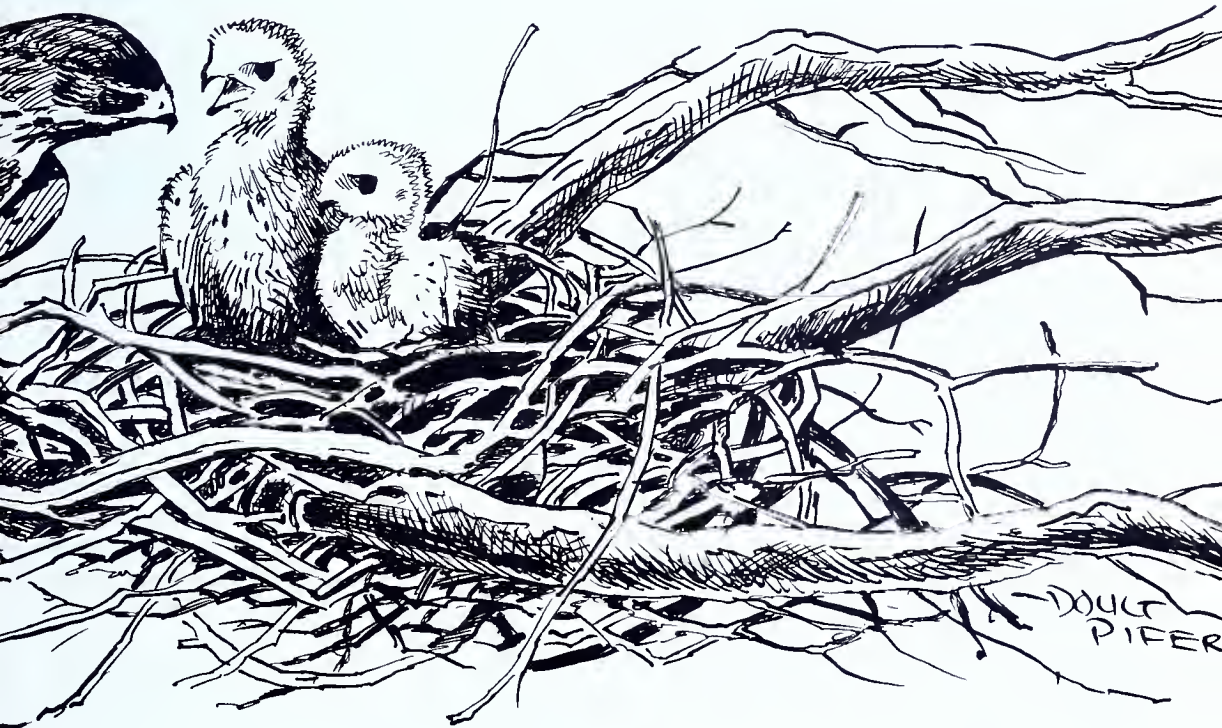
June 8. No question about it, the adults are feeding chicks. They crouch over the cup of the nest, shoulders jerking spasmodically as they regurgitate food for the nestlings. This afternoon, one adult sits nearby on a limb, calling in a plaintive ascending whistle, while the other dismembers what appears to be a small bird, and distributes bloody pieces to the invisible young.

The *Wingless Crow* is a collection of 33 "Thornapples" columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

June 12. The female (I assume) spends much of each day brooding, sitting in the dull heat amid the loud, incessant drone of the 17-year cicadas. Her face is fiercely handsome. The lower part of her bill is black, the top mandible yellowish with a sharp hook. She never seems to doze: Always her eye is keen, piercing, vigilant.

June 21. Two blue jays harass the hawk on the nest. She sits as if made of stone. The male brings in another small bird.

June 25. A chick! A head the color of vanilla ice cream rears up from the cup of the nest, and a fuzzy white wing wobbles. I spend a lot of time looking through the scope today. I think there





This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

are at least two young. Concerning broad-winged hawks, Hal Harrison writes in *A Field Guide to Bird's Nests*: "Eggs: 2-3 . . . Broadwings probably mate for life; change nesting sites and territories regularly. Eggs in each of 406 clutches: 15 of 1, 183 of 2, 190 of 3, 18 of 4."

Hardly Cute

June 26. Definitely two chicks: They cannot be said to look cute. Their faces are triangular and skull-shaped when seen from head on, with broad brows and black eyes; the white down covering their bodies looks like mold. Today an adult brings a small mammal, a vole or a mouse. The hawk plants one foot on the prey and tears it apart with its bill, then presents the scraps to the nestlings, who lunge for it. One nestling, bigger than the other, gets the lion's share. (Hawks begin incubating as soon as the first egg is laid, giving the first hatchlings a headstart on the others. If food is scarce, the later young don't survive.)

June 29. My son's birthday party. Surprisingly, the hawks pay no attention to the crowd of children and adults on the shaded lawn a hundred yards away. Lots of guests "ooh" and "ahh" through the spotting scope; some get to see the chicks being fed. "It's one thing to watch something like this on television," one woman says. "It's completely different—just awesome—to watch it in the flesh."

June 30. In a gusting wind, the nest sways in and out of the scope's field of view. An afternoon thunderstorm builds; inexplicably, no adult is on the nest. It gets so dark I have to reduce the scope's power from 45 to 20 to have enough light to see. Leaves show their bellies all through the woods. Lightning strikes, thunder crashes, rain sheets down. The chicks are soaked, yet seem unperturbed. Like little fuzzy buddhas they squat in the nest. An hour later sunlight shafts through the dripping woods, and an adult is back feeding the chicks, damp and bedraggled but looking none the worse for the wear.

July 2. The chicks' wing feathers are starting to come in. They like to stand and stalk around the nest, sometimes bumping into each other. The smaller chick has, it seems, almost caught up to the larger one. A light shower this evening, and an adult shows up to cover the young with outspread wings. Why now, and not during the far worse storm last Sunday?

July 3. Early this morning one of the adults came and perched on a snag in plain view about 40 yards away. While I watched through the binoculars, a hummingbird flew up and inspected the hawk, hovering on one side, then the other, then zooming away. A robin squawked at the hawk, and then flew at it, wisely veering off before getting too close. The hawk sat there for almost an hour, hardly moving; I looked up from my work and it was gone.

July 4. An 8-point buck in velvet, accompanied by a spike, fed right past my window, reaching up to grab a leaf here, another there, binding its long slim

neck to snuffle up a mushroom at the base of a stump. The deer fed right under the hawks' tree, and when I checked through the scope, one of the young was perched on the lip of the nest, staring down. The young are now feathered on the wings and faintly on the back. On the still-downy head, the ear is visible as a dark spot behind and below the eye.

July 9. The nestlings spend a lot of time standing, shuffling, preening, scratching. Their wings are almost fully feathered, and their barred breast feathers are starting to fill in.

July 11. Broadwings are supposed to feed mainly on snakes, amphibians, insects and small mammals. These hawks, though, bring in more birds than anything else. At noon, when I go for a run, I startle a broadwing out of the brush a half-mile down the gravel road. It takes off with a baby robin in its talons, heading back for our stretch of woods.

July 12. One of the adults brings in a bird, which the young themselves tear apart and wolf down. First one nestling feeds, then the other shoulders the first aside, almost knocking it out of the nest. The young hawks have no trouble dismantling a carcass. Chunks of red meat and organs disappear down their maws. When finished, they preen or go stalking around the nest. One backs up to the edge, crouches, and squirts a white streamer over the side.

July 15. The youngsters spend much of the morning flapping their wings. Although their heads are still downy, their wings, backs and tails look fully feathered. They seem almost as big as the adults.

July 16. It must be a bit dull, being cooped up all day with about two square feet of sticks to walk on. Flies circle the nest constantly, land on backs, are shaken or preened away, circle and land again. Whitewash stains the nest's edge, the branches, the tree



trunk below. The boredom is relieved when a parent brings a meal: this morning, a garter snake.

July 18. One of the young is having a great time jumping straight up into the air, flapping its wings, and floating back down to the nest. This youngster—the larger of the two, with feathering just starting to darken its head—flaps over to a big branch a couple of feet away. It lands unsteadily, perches there for a while, looking all around; then it flaps back to the nest and catches onto the edge, pumping its wings to gain its balance. It won't be long now.

July 19. One young hawk stands by itself on the nest. I'm pretty sure the first one left around six o'clock this morning, when I heard a ruckus, a crow scolding, some songbirds chattering. I'll keep a close watch on the nest, and when the second hawk goes off I may try to follow it for a while in the woods. Soon the parents will have it flying, hunting for itself in the cut-over land. The show will be over. I'll miss it. I know it will be weeks before my eyes, leaving my work, stop lifting to the empty nest.

Keeping Comfortable

By Keith C. Schuyler



GEARING UP for the weather not only increases a hunter's comfort but can also increase his chances of success. Fidgeting in cold temperatures can spook wary game. Sportsmen must anticipate the normal weather for the season, and then be prepared for abnormally low and high temperatures. It's a new twist on the adage, "Dress for Success."

from his own experiences. Nevertheless, I can find little in archery books about how to dress for hunting in weather that may range from close to the top and the bottom of the average thermometer. There is one book, *Bow Hunting For Big Game*, that goes rather extensively into what to wear when bow hunting—over two full pages. I own the copyright on that one and could probably add another page because it came out in 1974.

It is too easy to just recommend one of the many catalogs with excellent hunting clothing. Funds to cover all contingencies are frequently beyond the average budget. Most hunters already have sufficient apparel—if they use it properly. Footwear can be an exception, and we'll talk about it later.

To me, proper clothing for a hunt can be as important or even more so, than a good bow with arrows to match. If you have to physically fight the weather by stomping your feet against the cold, or by wiping perspiration from your brow because of the heat, you may miss seeing game that wants to share your stand with you. How many times have you spotted another bowhunter because of movement—perhaps caused by improper clothing? If you can spot such movement, it is a fair bet that deer can too.

I'm reminded of a member of our hunting group who didn't heed the advice to go light. We could trail him during the day from articles of clothing that he shed as the day grew hotter. He was quite comfortable in the cool of

THOSE OF US with gray under our caps, or bare spots where hair used to help hold the heat, remember when it was fairly easy to maintain a comfortable body temperature when hunting.

Gunning season for deer opened on or about December 1, and lasted about two weeks. We loaded up with enough extra clothes to avoid frostbite, chilblains and hypothermia. The latter didn't show up until doctors told us about it much later, but we were smart enough to guard against it anyway. Apart from cold feet and ears, we endured pretty well. The color of our clothing didn't matter much.

Then came bowhunting.

That was something else we didn't know much about, except for Robin Hood and Howard Hill and a few other famous bow benders.

Writers lied an awful lot about Hood, still do, but Hill gave it to us straight



A NUMBER of commercially available devices can aid in keeping the hunter warm. Some products are reusable, requiring only that the hunter boil them to recharge the units. For those who choose to buy the disposable types, remember that you'll have to carry out used ones for proper disposal.

morning but paid an unnecessary price later in the day.

This is one of the biggest problems in selecting clothing for a hunt. You can generally anticipate the temperature, but there are such things as cold fronts, warm fronts, rain, snow, or some combination thereof. Even if your selection is reasonable for the time of year, you can expect considerable variations in temperature during the day. If you select well, you might find that you must bear being uncomfortably cool in early morning. Likewise, during the day you can work up a sweat that chills as the temperature drops.

In situations where temperature changes can pose a problem, an item that has no direct bearing on your creature comfort can be a big help. A liberal-size belt pack or knapsack can store extra clothing. Conversely, it is a place to carry discarded clothing that may make you uncomfortably warm in midday.

On an all-day hunt, you may do a couple switches—with care not to mash your lunch or chocolate bars. Keep in mind that you can always remove offending garments; you can't add clothing that you don't have along. And a light poncho or raincoat can get you back to the car or camp if the weather turns sour.

If you are going into strange territory, it is well to be equipped for 20 or 30 degrees either side of what is considered normal for the time of year. For example, I've seen it miserably hot in Quebec caribou country; I've flown back in snow storms that threatened to extend my planned visit by days or weeks.





UNCOVERED HANDS are bound to get cold, especially if they have to grip a bare bow. Bow grips, or handles, are sometimes merely bare metal with paint on them. A covering such as lamb's wool wrapped around the bow grip can help. Effective gloves and mittens tend to be bulky, and it's important to practice with them on if you plan to hunt with them.

can keep warm in the small of your back, you tend to be comfortable elsewhere.

Headgear assumes more importance as you add years to your hunting experiences. Doctors tell us that we lose a lot of heat through our top extremity. With some haircuts, or lack of them, among certain of my hunting companions, this is moot point. As one who always hated hats except to keep hair out of my eyes, I have succumbed to wearing headgear since lengthy hair is less a problem for me these days. Besides, the current color of my natural head covering is not camouflage, except when there's snow on the ground.

Most bowhunters do wear caps or hats to match their suits for the camouflage effect. This generally lightweight headgear is usually sufficient. However, when it gets really cold, you might consider a wool pull-down hat similar to what your mother made you wear to school in winter. It will keep your head warm. If you don't like ear muffs, the hat can be worn over the ears when it's really cold. Some prefer to endure the cold on their ears rather than obstruct their hearing.

Most important, of course, is the clothing that covers your torso and limbs, in that order. Those who wear long johns, or insulated underwear, are ahead of the game if the weather really turns cold. But long underwear is difficult to remove under field conditions if you become too hot. Here is where your personal preference moves ahead of any suggestions found here. I wear the same type of underwear the year around and rely on overgarments to adjust to my personal thermostat.

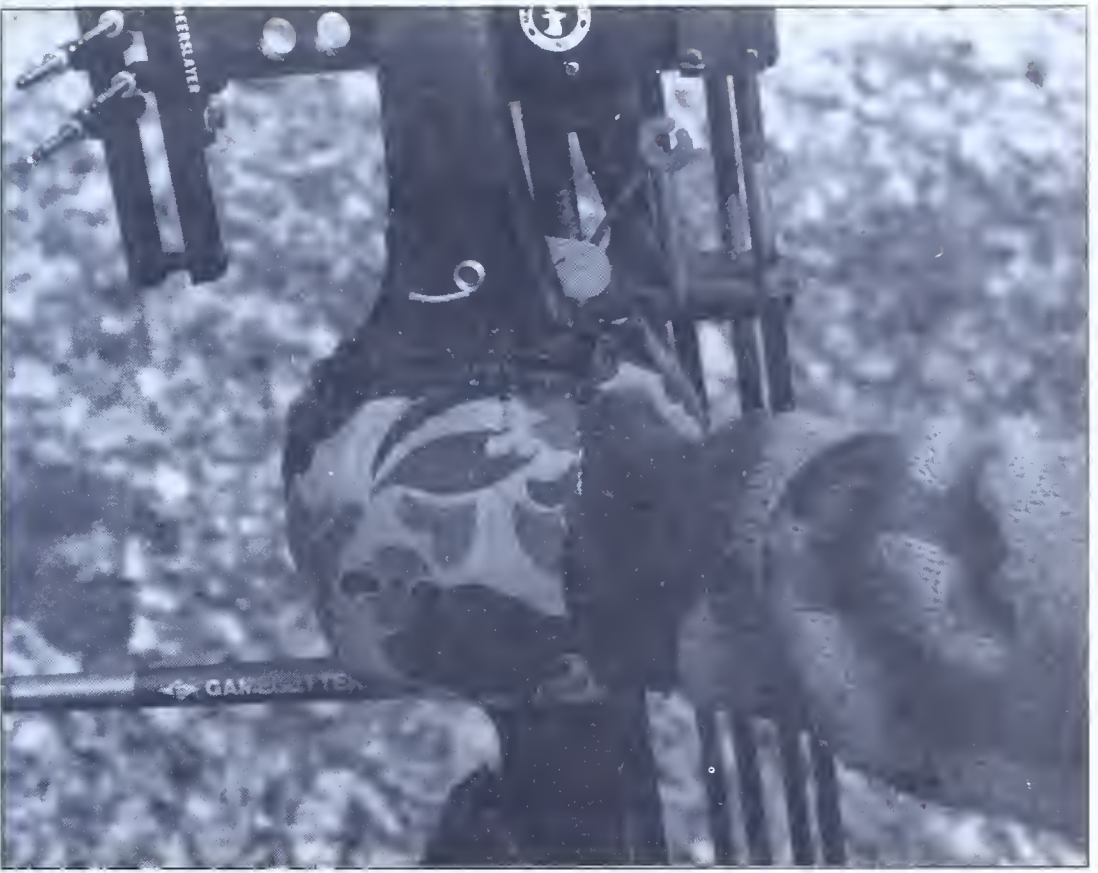
The outer garment, usually a camouflage suit, should act as a wind break. Underneath that should be clothes that

Never overdress. It is better to be on the cool side for a hunting stand than to load up so that you overheat on the first uphill grade.

Bulky clothing should be avoided unless you have practiced long and well while wearing it, unlikely during the warm weather preceding the archery season. Of no concern when gun hunting, protruding pads or wrinkles can catch a bowstring and nudge your arrow far from center. Some of the fine garments offered today eliminate much of the bulk. What you carry for extra warmth should be loose knit but close fitting.

I recall a day, when a proficiency test was part of the National Bowhunting Education Program, that a large group was being qualified at my home. It was so cold that bulky insulated jackets were fouling up the shooting, and some who were normally competent field archers had to try three times before they could come up with an acceptable score.

In the early days of bowhunting, I carried a scarf to supplement clothing. But, rather than wear it around my neck, it went around my waist. If you



provide air space. In my opinion, this is the greatest factor in keeping comfortable. They should be loose in warm weather (take a lesson from the Mexicans); snug when it's cold.

For what it's worth, you might consider the effects of becoming so warm that you perspire freely. No matter what pains you have undergone to cover up your human scent, perspiration is going to advertise your presence to wild creatures. Of course, it continues to be my opinion that keeping downwind from the game you seek is the only sure way to prevent it from detecting your odor.

We've covered most of the body up to this point, but sticking out there are a couple pairs of hands and feet that need attention. And because they do most of the work in bowhunting, and take most of the abuse, they require a close look.

Farthest from the old blood pump, feet are toughest to heat. And because they require special protection, are

toughest to cool when surrounding temperatures hit the ceiling. From a practical standpoint, next to the eyes, the hands are the most important part of the anatomy needed to make a shot. They are also the most vulnerable to low temperatures.

A few years ago the thermometer stood at minus 4 degrees where I was on the antlerless deer season opener. I finally activated one of those newfangled hand warmers in my pocket. I thought it was sort of useless until I headed for home, carrying my bow in that bare hand. Within 200 yards, my hand was so cold that I really suffered thawing it out.

There are gloves and mittens for those who prefer them. Most, if they are effective, tend to be cumbersome. Those adapted for drawing a bowstring or a release device do little to keep the cold out. The same is true, to a somewhat lesser degree, for the bow hand. Bow grips, or handles, are sometimes bare metal with paint on them. Cold-

resistant grips can be fastened over some bows. A covering of lamb's wool will at least separate your hand from the metal. Of course you should practice with the covering in place.

A number of new devices have appeared on the market to assist nature in keeping you more comfortable. Among the first to appear was The Heat Solution, a reusable, 3 x 4-inch pad filled with a clear liquid activated by flexing an internal metal disc. It provides heat for up to an hour, and it can be reused maybe up to 100 times, by simply boiling for six minutes after each use. If the day is continuously cold, a number of these would be necessary.

The Grabber Mycoal is a similar product, 2 $\frac{1}{8}$ x 5 $\frac{3}{8}$ inches, that is activated simply by removing it from its plastic packet. Heat is provided within a few minutes and continues for seven hours or more. It can be used only once and is disposable.

Hot Pad, by The Game Tracker, is but 2 $\frac{1}{2}$ x 3 inches and claims to heat from 135 to 158 degrees for up to eight hours. It comes with a caution not to use it for more than a few minutes at a time on bare flesh.

Some manufacturers make different

pads for other areas of the body, including the feet. Just keep in mind when buying the disposable types that you need to carry the used packets and pads with you until they can be properly disposed of.

Most important of all clothing is a proper pair of shoes. Here personal preference takes precedence. Good footwear is costly, but this is no place to skimp financially. Your choice of rubber or leather should depend on how much walking you expect to do. I prefer insulated leather shoes that do not leak—tough ones with well-cleated soles.

Footwear should be large enough to accommodate a pair of wool socks. On the rare occasions I wear wool socks, I cover them with a pair of dress socks to make it easier to pull shoes on and off and to keep the coarser material from bunching.

There are days when even a pair of tennis shoes might fit the temperature. However, it is risky wearing such footwear on rough terrain because of poor ankle support.

Bowhunters expect a certain amount of inconvenience; it's part of the game. But proper clothing can help you suffer in relative comfort.



THE NATIONAL Rifle Association recently recognized the Commission's Hunter-Trapper Education program as one of the 10 best in the nation. The agency's formal program, begun in 1959, has trained more than one million hunters and trappers. Since 1969, when all first-time hunters and trappers were required to take the course to obtain their licenses, the state's hunting accident rate has dropped 80 percent. Jim Norine, director of NRA's Hunter Services Division, and NRA Director Dave Howells, Allentown, made the presentation to PGC Executive Director Pete Duncan.



Short Action Deer Cartridges

By Don Lewis
Photos by Helen Lewis

I WAS IN the process of getting a jar of pickles from a supermarket shelf when a powerful hand clamped hard on my collarbone. "You're just the fellow I want to talk with," a voice behind me said. When I finally managed to turn, I was facing a man who towered over me by six inches.

"What's on your mind," I asked, hoping that I didn't look like someone who owed him money.

"I want to buy a deer outfit that doesn't kick like a mine mule," he replied. "I've used a 30-06 for over 35

years with good success, but its recoil is starting to bother me. In fact, I don't shoot much at the range anymore. Several of my hunting friends suggest going to a 6mm, but I don't like the 243 caliber for deer. I want to use heavier



bullets, and I want to try a short-action rifle. What would you suggest?"

"There are three excellent short-action cartridges above 6mm that come to mind. In the 28 caliber, my first choice would be a Remington 7mm-08 followed by the 284 Winchester. However, the 284 (some call it a medium-action cartridge) is fast becoming obsolete, and I can't think of any rifle manufacturer who chambers for this fine deer cartridge. Fortunately, there

is an ample supply of good used 284 bolt- and lever-action outfits on the market. And it doesn't require a lot of money to have an ex-military action such as a Mauser or Enfield rebarreled for the 284 Winchester. In the 25 caliber, the Remington 257 Roberts is unbeatable."

"Do you really think those short-action cartridges are adequate for Pennsylvania deer hunting?"

"Well, right now I'm in the process of

Fun Games

"Do you know the Game Law?"

By Connie Mertz

Circle the correct answers to the statements below.

It is lawful to use electronic callers on: (E) raccoons (P) crows
(L) coyotes (O) all of the above.

It is unlawful to use these within 30 days of the hunting season.
(P) turkey calls (E) artificial & natural baits

It is unlawful to do this while hunting or trapping.
(Y) whistle (P) cough (O) litter (R) run

It is unlawful for farmers to possess these in archery season while hunting deer.
(P) recurve bow (R) portable treestands (E) firearms

It is lawful for farmers to hunt or trap these predators on their property without a license.
(T) deer (F) bear (D) coyotes (E) turkeys

It is unlawful to hunt these in Pennsylvania.
(W) otters (L) bobcats (I) grouse (L) elk (I) doves

Copy EVERY letter to EVERY choice, then unscramble each word to discover why we have game laws:

To Protect: _____,
and _____

answers on page 64

THE 7MM-08 Remington, left, may not have the power of the larger 7mm-class rounds from that manufacturer—the 280 and 7mm Magnum—but it is, nonetheless, an outstanding deer cartridge. Remington claims the 7mm-08 with a 140-grain bullet has better downrange performance than a 308 Winchester with a 150-grain bullet.

range testing a Remington Model 700 Mountain rifle chambered for the 257 Roberts. I have it topped with a Simmons' Pro-Hunter 3-9x scope. It has deer written all over it, and if a buck gets within 250 yards of me, I certainly won't feel underpowered with it."

The term "short action" has been mentioned several times, and it may be confusing to many sportsmen who aren't familiar with the various types of actions. Generally speaking, American rifle manufacturers stick with two types of actions: long and short.

Because varying lengths of actions have been produced over the years, it's not uncommon to hear the term "medium action," but that really is just another term for short action. Some European rifle builders use three or four lengths of actions, depending on the cartridge length.

Short actions are suitable for cartridges such as the 222, 22-250, 6mms, 257 Roberts, 284 Winchester and the 308 Winchester. Long actions take care of the 25-06, 270 Winchester, 30-06 and most of the magnums. The advantage of the short-action rifle lies in the distance of its bolt travel.

Since I mentioned the Remington 7mm-08 first, let's take a look at its ballistics. Ballisticians have known for years that a 7mm caliber bullet (284 caliber) gives outstanding field performance. For decades, big game hunters in Europe have taken advantage of the good sectional density and excellent ballistic coefficient of the 28 caliber bullet. I've read they recognized the 284 caliber's potential as far back as the old 7 x 57 (7mm Mauser), and that goes back nearly a hundred years.

The 7 x 57 cartridge never generated much of a following in the United States, but it was the parent cartridge for innumerable wildcats, including the



257 Roberts that later became a commercial cartridge.

The 28 caliber bullet languished in a weakened state until the 7mm magnums hit the scene. It might be wiser to say Remington's 7mm Magnum brought recognition to the 284 bullet. Weatherby's 7mm Magnum was introduced in 1944, and Remington's 7mm Magnum came along in 1962. Weatherby had an 18-year head start on the Remington creation but never achieved the same popularity. One reason for this could be that Remington's 7mm Magnum rifles and cartridges were more widely distributed.

Necked-Down 308

The Remington 7mm-08 is a direct descendent of the 7mm-308 wildcat that dates back to the mid 1950s. That wildcat was made by necking down a 308 case to accept the 284 caliber bullet. Remington brought out the 7mm-08 in 1980, and it, too, is based on the necked-down 308 case. It's fair to say that Remington's main interest was to offer a cartridge suitable for short-action rifles. Remington's offering popularized a round that, as the 284 Winchester (introduced 17 years earlier), had never appealed much to shooters.

In a span of only 10 years, the 7mm-08 has established itself as an excellent deer cartridge. Advocates of 308 cartridge find it difficult to believe Remington's claim that its 140-grain 7mm-

08 load has a better downrange performance (beyond 400 yards) than the 150-grain load of the 308 Winchester. Those figures don't demean the 308, but they do show that the 7mm-08 is not just another small cartridge.

To the best of my knowledge, only two factory bullet weights are available in the 7mm-08. Although either the 120- or 140-grain bullet is adequate for Pennsylvania big game, heavier bullet weights are desirable for animals such as elk. Handloaders will have no problem finding published loads for heavier bullets, and the metallic silhouette shooter won't have to stick with the two factory offerings. It would be nice, though, if the factory offered a wider selection of bullet weights for the round.

With factory muzzle velocities running more than 2800 fps with the 140-grain pointed soft point bullet and 3000 fps for the 120-grain hollow point, the Remington 7mm-08 is adequate for most North American big game.

Ned Roberts' Baby

The 25 Roberts is the brainchild of gun writer/experimenter N.H. (Ned) Roberts. Firearms history indicates that Roberts' final version of his 25 creation was a 7x57 Mauser necked down to accept a .257 diameter bullet and the shoulder angle was changed to a gentle 15 degrees. It was believed then that less shoulder angle reduced chamber pressure.

Dates vary on the 25's appearance but, in 1934, Remington introduced a standardized version of Roberts' 25—renaming it the 257 Roberts to avoid confusion with the wildcat.

The case shape was altered to facilitate factory production. The shoulder was moved forward slightly and the shoulder angle sharpened to 20 degrees. Legend has it the factory stuck with the original 21-degree shoulder angle of the 7x57 Mauser, and that might be true since the shoulder angle on today's factory cartridge is 20 degrees, 45 minutes.

Remington introduced the cartridge

in its Model 30 bolt-action rifle, and Winchester lost little time in chambering its Model 54 bolt-action outfit for the new cartridge, and included the 257 Roberts when the Model 70 arrived. Later, Remington chambered both the 722 bolt-action and the 760 pump for the 257.

As a testimony to the 257 Roberts' effectiveness, it has been said that it is one of the "most useful cartridges developed since the turn of the century." That might be going a little far out on the limb, but the 257 Roberts has been and still is being overlooked by white-tail deer hunters.

I have no exact figures, but the 257's popularity diminished significantly when the 6mm cartridges appeared, just as the 250-3000 Savage fell victim to the 6mms. It's true the 6mms offer a slight velocity gain over the 250 Savage when the 100-grain bullet is used, but it's just as true that both the 250 and 257 can handle bullet weights up to 120 grains. That's important to consider.

One thing that worked against the 257 Roberts was the low chamber pressure threshold of 45,000 psi established by the firearms manufacturing industry. Some experts argue that there is no need for such a low limit in today's modern rifles. *Speer Reloading Manual No. 11* states, "There is no reason, in modern rifles, to limit pressures this much and this data was developed with a 48,000 cup maximum average limit."

The 6th edition of *Cartridges of the World* states, "With modern powders the reloader can step it up safely in all bullet weights." The 6mms may have nearly administered the *coup de grace*, but had good lightweight sporting rifles been built for the 257, it would have held its own against the 6mms in the varmint category. It is definitely superior to the 6mms as a medium-size big game cartridge.

Many advocates of the 257 Roberts claim its appeal arose from its versatility. It was devastating on varmints at long ranges, and it had the flat trajectory and power to qualify as a top antelope and deer cartridge. On medium-

size game, it's as good as the rest of "conventional" big game cartridges.

I admit the 257 Roberts is not as powerful as the Remington 280, Winchester 270 or the 30-06, but those three cartridges aren't as powerful as magnum-size cartridges, either. While not one of the three mentioned rounds can generate the power and velocity of most magnums, they are fully adequate for most North American big game. I feel the Remington 257 Roberts is fully adequate for Pennsylvania big game hunting.

Remington's ballistic chart for the 257 shows the 117-grain soft point Cork-Lokt bullet leaving the muzzle at 2,650 fps and 2,291 at 100 yards. Kinetic energy at the muzzle is 1,824 foot-pounds and 1,363 at 100 yards. Even at 200 yards, velocity is on the high side at just under 2,000 fps; energy drops slightly below 1,000 foot pounds. That's totally adequate for whitetail deer and black bear. Varmint hunters can reload up to 3,250 fps with 87-grain bullets.

My hunting friend Bill Nichols, De Young, is a faithful fan of the 257, and has a number of deer racks to prove his point. Rifle builder Jim Peightal, Ernest, just finished a super varmint outfit with a classy stock and Donnelly barrel chambered for the 257 Roberts cartridge.

Back a few years, it was rumored the 257 was riding into the sunset, and that rumor circulates to this day. Don't believe it; I feel its best years are yet to come. The 257 Roberts should get top attention from hunters who appreciate short-action rifles that aren't shoulder breakers.

When I installed the Simmons scope on a Remington Model 700 Mountain Rifle chambered for the 257 Roberts, my thoughts raced ahead to the coming buck season. However, when Helen handled it for several minutes, she claimed it was just what she needed to score on opening day. Don't worry. If she does use it, it isn't because I'm not the boss; it's because I'm a gentleman. Right, Helen.

Black Forest . . . Souvenirs, by Henry W. Shoemaker, and **Pennsylvania's Pine Creek Valley and Pioneer Families**, are two books recently published that are sure to please history buffs, particularly those interested in Pennsylvania's early settlers and hunters. The books are available largely because of Spencer Kraybill, a retired master plumber and mechanic who moved to Waterville in 1984 and has since made an avocation out of collecting old hunting tales and other historical information on the area. Working with the Lycoming Historical Society, Kraybill has had several old books republished—including Philip Tome's *Thirty Years a Hunter*, originally published in 1854. In these two recent offerings, Spencer had Shoemaker's book reprinted and compiled the Pine Creek book himself.

Originally published in 1914, *Black Forest . . . Souvenirs* is a collection of hunting stories and other legends Henry W. Shoemaker compiled in 1898. These 19th century accounts are based on interviews Shoemaker had with hunters, lumbermen, Indians and other settlers in the "Black Mountains" of northcentral Pennsylvania. The 412-page hardbound book costs \$22.50, delivered.

Pennsylvania's Pine Creek Valley and Pioneer Families is a most impressive, 1,354-page history of Pine Creek. Kraybill provides an interesting historical account of the area—from the Susquehanna River to Route 6 in Potter County—along with genealogical records of 49 families associated with the area since the 1800s. More than 700 old and recent photographs of residents and points of interest complement the work. *Pine Creek Valley and Pioneer Families* is available for \$63.50, delivered.

Make checks payable to "Pine Creek Historian" and order from Spencer Kraybill, Pine Creek Historian, Swiss Chalet Lane, Waterville, PA 17776-5498.

In the wind

j. scott rupp



The last two female Florida panthers known to live in Everglades National Park have died. Experts expect the two remaining males in the park to leave in search of mates. Only 30 to 50 of the big cats survive in the wild today. The plight of the Florida panther was detailed in the August GAME NEWS on p. 51.

Deer hunters risk contracting Lyme disease if they don't thoroughly cook venison, reports Sports Afield. A University of Wisconsin study showed, however, that the internal temperature of the meat has to reach 160 degrees for only 2½ to three minutes to kill Lyme bacteria.

A bill that would have banned the use of leghold traps in New Hampshire was defeated in the state house of representatives. The legislation had passed the senate, despite a "no pass" recommendation from the senate's wildlife and recreation committee. The house vote was 231 to 111 against.

North Dakota's sharptail grouse are continuing their population recovery. Last year's harvest showed a 34 percent increase over '89, and dancing ground surveys indicated a 9 percent increase statewide.

The Humane Society's efforts to stop a planned whitetail hunt on Mason Neck National Wildlife Refuge were halted in U.S. District Court. The society's suit against the U.S. Fish and Wildlife Service was dismissed, according to the Wildlife Management Institute. The hunt is designed to thin the burgeoning deer herd at Mason Neck, located just south of the nation's capital.

Nearly 300,000 Christmas trees bound for Georgia landfills were instead turned into mulch as part of a statewide recycling program. The chipped trees equalled 36,000 cubic yards of landfill space—more than 4,000 dumptruck loads. The program was coordinated by Georgia Clean and Beautiful and Georgia Power, which donated 150,000 seedlings to residents who turned in their trees for recycling.

The red-cockaded woodpecker, a native of the old pine forests of the southeastern U.S., is headed for a population crash, reports *Bird Watcher's Digest*. The bird is fast losing its habitat as the old-growth pine forests are being timbered and clearcut. Experts say no red-cockaded woodpeckers live on private property, existing entirely on U.S. Forest Service lands.

The Archery Manufacturers Organization has begun a fund-raising effort to promote and defend bowhunting. A portion of the price of each archery product sold by participating manufacturers will be allocated to bowhunting defense groups and promotional programs.

The Rocky Mountain Elk Foundation was recently honored by the United Nations Environment Programme (UNEP) for its work in protecting and improving more than a half-million acres of wildlife habitat in North America. According to the *Wapiti* newsletter, the elk foundation has spent more than \$12 million on wildlife since 1984. UNEP was established in 1973 to protect the environment by distributing educational materials and coordinate environmental initiatives.

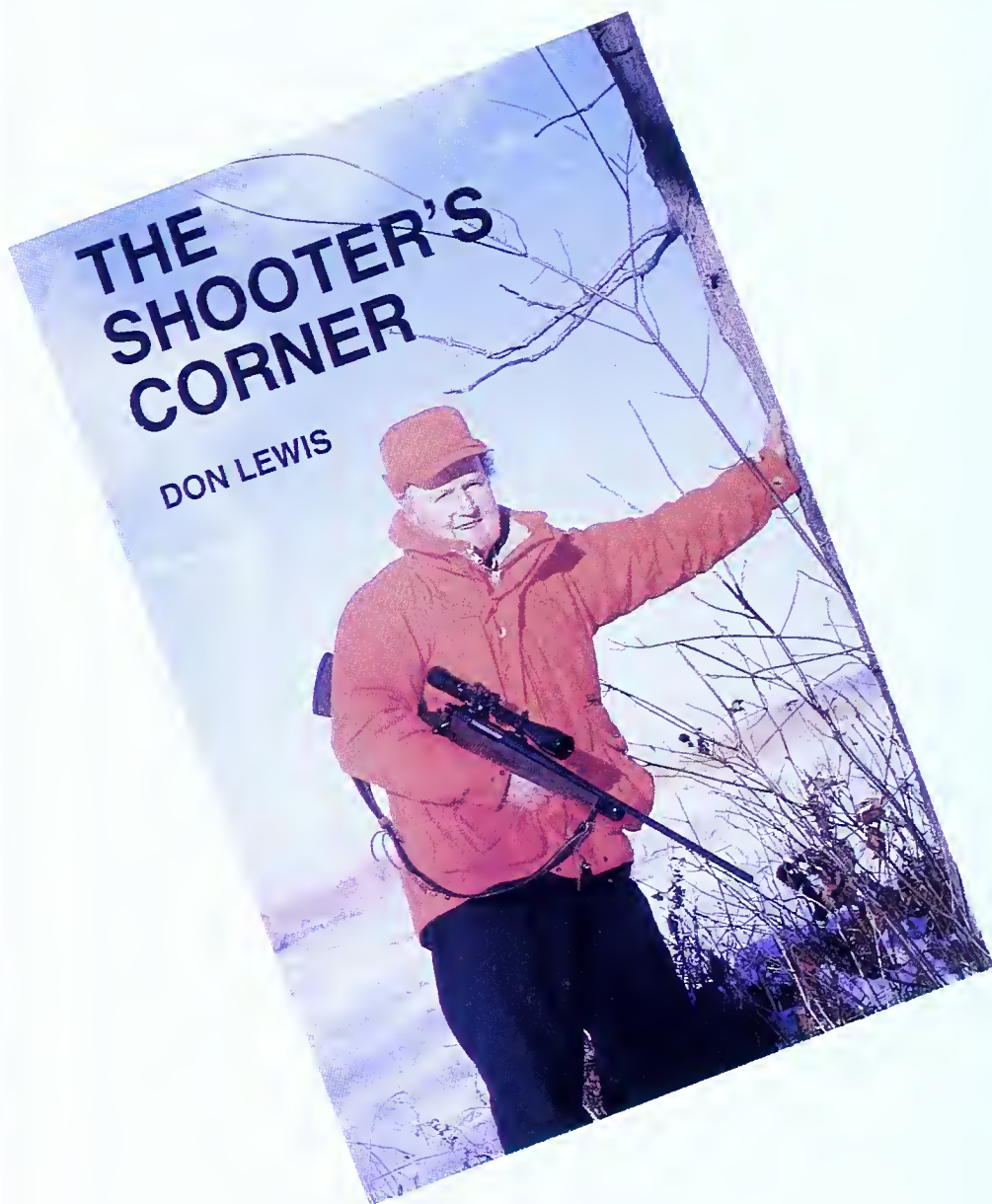
The National Wild Turkey Federation has signed an agreement with Transcontinental Gas Pipe Line Corporation in which the two entities will work together to manage the gas company's pipelines for wildlife—particularly turkeys. NWTF will assist in developing and supplying seed mixtures appropriate for habitat management throughout Transco's geographic regions. Transco will purchase the seed mixtures to create, restore or improve vegetative cover. The company owns pipeline rights-of-way from the Atlantic Seaboard to the Gulf Coast.

Answers: O, E, O, E, D, W, L & L,
PEOPLE, PROPERTY & WILDLIFE



Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. If you are not sure of which maps you want, write for a PGC map order form.



THE SHOOTER'S CORNER, by Don Lewis, is a 449-page hardcover book that covers nearly every facet of the shooting sports from a hunter's point of view. Beginning with the history of firearms, Don covers actions, stocks, and barrels; scopes and metallic sights; rimfire, big game and varmint cartridges; shotguns, gauges and fit; and a whole lot more. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. Price is \$15 delivered.

PENNSYLVANIA GAME NEWS

ONE DOLLAR





At the Den, featuring a pair of red foxes by Lancaster County artist Laura Mark-Finberg, is the ninth limited edition fine art print available through the Game Commission's "Working Together for Wildlife" program. As with previous editions, *At the Den* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125, delivered; framed prints are an additional \$97.50. Limited numbers of the 1986, '87, '88, '89 and 1990 prints, featuring the kestrel, elk, egret, white-tailed deer and bald eagle, respectively, are still available. Invest in the future of Pennsylvania's wildlife—and yours, too. Order from the Pennsylvania Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

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FEATURES

The Farm Buck 3
By Jesse Wagner

His First Buck 6
By Jim Fitser

The Best Season of All 12
By Paul A. Matthews

Blue Ridge Acquisition 16
By Joe Kosack

Two Seasons a Day 20
By D. C. Dufford

290 In, 110 Out 25
By Karl G. Hanosky, Sr.

The Outlaw Trapper of Willow Grove 28
By William Wasserman

NEWS

Field Notes 33

Conservation News 38

In the Wind 62
By J. Scott Rupp

Annual Index 63
By Betsy Maugans

COLUMNS

How Not To (Another View) 40
By Linda Steiner

Outdoor Wildlife Learning 43
By Bill Einsig

WCO Diary 45
By Keith A. Snyder

Thornapples 49
By Chuck Ferguson

Fun Games 52
By Connie Mertz

Archery Assists (Archery) 53
By Keith C. Schuyler

Black Powder/White Smoke (Guns) 57
By Don Lewis

COVER PAINTING BY SCOTT CALPINO
(Cover Story on Page 5)

PENNSYLVANIA GAME NEWS (ISSN 0031-451X) is published monthly for \$9.00 per year, \$25.50 for three years, or membership in Pennsylvania's Cooperative Farm-Game Project or Safety Zone Project; to Canada and all other foreign countries, \$10.00 U.S. currency, per year. Published by the Pennsylvania Game Commission, 2001 Elmerton Ave., Harrisburg, Pa. 17110-9797. Phone (717) 787-4250. Second-class postage paid at Harrisburg, Pa. CHANGE OF ADDRESS: POSTMASTER: Send both old and new addresses to Pennsylvania Game Commission. Allow six weeks for processing. Material accepted is subject to our requirements for editing and revising. Author payment covers all rights and title to accepted material, including manuscripts, photographs, drawings and illustrations. No information contained in this magazine may be used for advertising or commercial purposes. Copyright © 1991 by the Pennsylvania Game Commission, an Equal Opportunity Employer, the programs of which are all administered consistent with the goals and objectives of Affirmative Action. All rights reserved.

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Good Reading Material

AMONG THE enjoyable aspects of being GAME NEWS editor is that I get to see a lot of books, often well in advance of publication. Normally, those worthwhile are mentioned in "Books in Brief." This month, however, I want to use this page to mention a few books that have crossed my desk in the past several months. What these have in common is that they're all by regular GAME NEWS contributors.

I'm sure many GAME NEWS readers will be glad to learn that WCO Bill Bower has written a second book about his experiences as a wildlife conservation officer. Bill's first book, *The Thin Green Line*, based in part on his series of "Looking Backwards" columns published in GAME NEWS in 1988, was extremely popular. In his new book, *One Man in Green*, are 35 more interesting, entertaining and at times humorous episodes gleaned from Bill's 25-year career. Bill's dedication and pride in being a wildlife conservation officer is reflected in his writings, and this book is no exception. Order from Bill at 153 Redington Ave., Troy, PA 16947, \$12.60, delivered.

Since 1955 GAME NEWS readers have enjoyed Paul Matthews' folksy reminiscences about a young man growing up during the Depression, learning about hunting and sportsmanship from a variety of colorful mentors, all in and around Mallory Run. What many readers may not know is that Paul is more than just a fine writer and storyteller; he's an experienced shooter and technical firearms expert as well. Since obtaining his first rifle in 1935, he has used many rifles over the years, putting them through the paces on the range and in the field. He's also done his homework at the loading bench and knows a lot about gunsmithing. In *Sixty Years of Rifles: A Personal Odyssey*, (Wolfe Publishing Co., 6471 Airpark Dr., Prescott, AZ 86301, 224 pp., \$22.50, delivered) are Paul's experiences with a wide variety of cartridges, from the 22 to the 458. This book will appeal to all shooting enthusiasts, from the most persnickety gun crank to those who simply enjoy reading about guns and shooting from someone who knows the subject.

Ken Wolgemuth, whose essays first appeared in GAME NEWS in 1986, is able to describe most eloquently his observations and thoughts. In *The Old Marlborough Road: A Journey into Wonder* (Zoland Books, Inc., 384 Huron Ave., Cambridge, MA 02138, 160 pp., paperback, \$9.95) Wolgemuth writes of his insatiable appetite for learning about the outdoors. In his writings, though, it's obvious he's searching for more, for answers to the same philosophical questions people have been asking since the dawn of ages. Explore the natural world with him; see how his curiosity has caused him to examine nature from the most unusual perspectives. How many of us have had, for example, the patience or inclination to crouch down and view our surroundings from a rabbit's point of view? *The Old Marlborough Road* isn't just about nature; it's about growing up and living, by a writer deeply committed to discovering on his own terms the fundamental truths of life.

In addition to these new books, other GAME NEWS writers have published books recently. Chuck Fergus has had two books published this fall. An excerpt from *A Rough Shooting Dog* was featured in his October "Thornapples" column, and his second book, *Shadow Catcher*, was announced in our September issue. Marcia Bonta's *Appalachian Spring* is covered in this month's "Thornapples." Mike Sanja's deer hunting book *Buck Fever* has been reprinted at least once since being introduced about a year ago. And, of course, there's Don Lewis's *The Shooter's Corner*, available from the Game Commission.

As GAME NEWS editor, I get a great deal of pride out of seeing writers I've dealt with develop into fine book authors as well. And if you've enjoyed their writings in GAME NEWS, I'm sure you'll thoroughly enjoy these books as well. Each comes highly recommended. —*Bob Mitchell*



MY BROTHER Jay got the first glimpse of the farm buck on a hot June afternoon. It jumped out of a rye field and dashed into the woods. Jay was stunned by its size and impressed by the width of the buck's half-grown velvet antlers. As summer went by we rarely saw the big whitetail.

The Farm Buck

By Jesse Wagner

WHEN FARM BROTHERS go out to get a deer, they sometimes succeed. I'm 16 years old now, but when I was only 12 my four brothers and I managed to hunt down one of the biggest bucks in the Muncy Hills area.

I live on a farm that my grandfather bought in the early 1930s. My father continued to run the farm, and my brothers and I helped with the chores. All the knowledge gained from growing up on a farm was used in my first hunting season.

It was a hot June afternoon when my brother Jay first got a glimpse of the deer we started to call the "farm buck." We had cut some hay the day before and Jay went back to see if it was dry

and ready to bale. As he crossed the terraced ditch and went into the field, a buck jumped out of the rye field, ran in front of his all-terrain vehicle and dashed into the woods. Jay was stunned by its size and impressed by the width of the buck's half-grown velvet antlers.

Safety of Darkness

As the summer went by we got only glimpses of the big buck. He never came out in the daytime; he stayed in the mountain laurel and waited for the safety of darkness to venture out.

We got one of our best looks at him when we sighted him while spotlighting in the middle of October. As we drove along the field that we had

worked so hard to plant in the spring, we swept the spotlight out into the yellowness of the oats.

There he was, staring into the light. We couldn't count the points very well because of the bright light reflecting off the polished antlers. We gazed in wonder at the deer's huge body as he stood up and slowly walked into the woods.

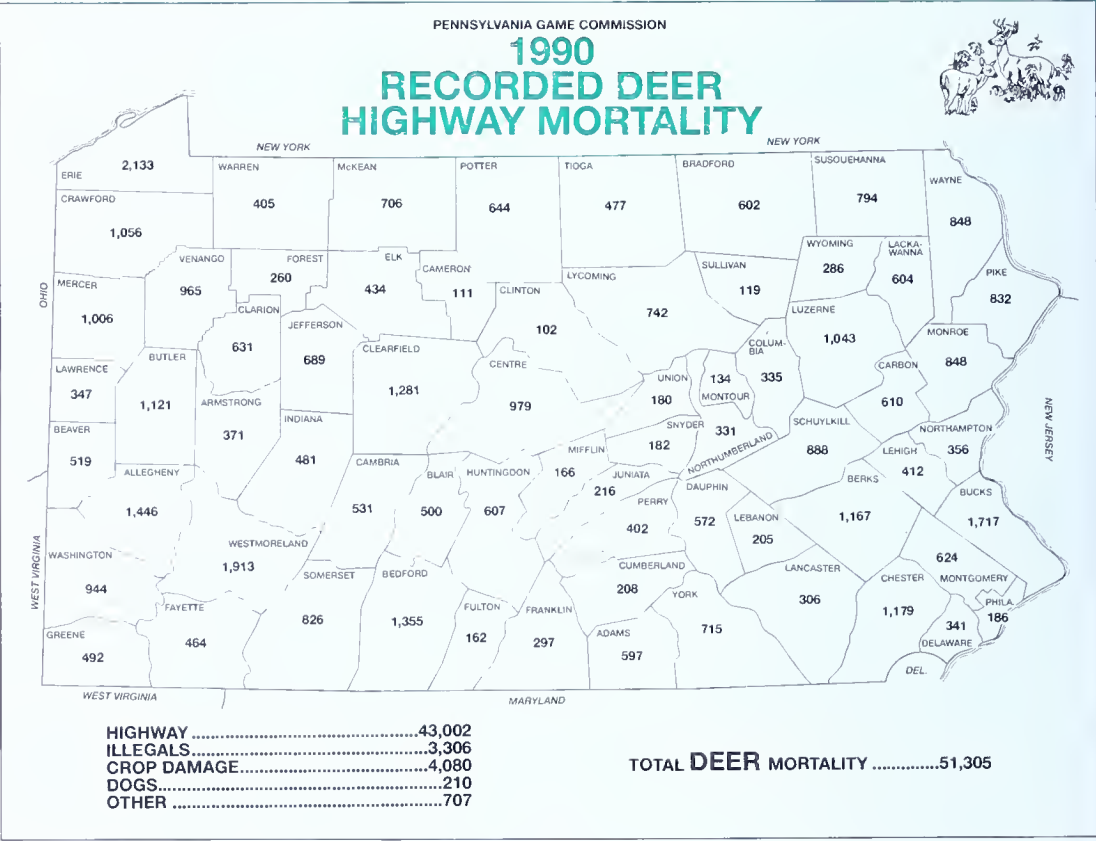
The next day a slight breeze blew as my brother and I stepped into the woods and sat down by a big oak for the first day of the squirrel season. About an hour had passed when I heard something coming through the woods at a slow, steady pace. It would walk a little bit, then stop; walk a little more, then stop. I put my shotgun up on my knees and waited. I thought it was a squirrel, but from under a hemlock tree came the buck we'd been watching since that hot June afternoon.

He came within 25 yards of us and stopped. The big buck slowly turned his head to see the shapes of our silhouettes. He put his head to the ground, trying to catch movement that would let him know we weren't part of the natural landscape. As I slowly blinked my eyes, he snorted and took off through the woods with his tail high in the air.

The first day of buck season finally came, and everyone around the farm was up at five o'clock and out to the barn getting the milking done. By 6:30 we were all on stands waiting for the farm buck.

We eventually tired of sitting, and figured it was about time to start driving for deer. While milking the night before, we'd drawn a diagram on the whitewashed wall in the barn of how we were going to drive the land and out-

RECORDS indicate 43,002 deer were killed on Pennsylvania's highways last year, and total known out-of-season mortality for 1990 reached 51,305. The increase in highway mortality is just another indication of excessive deer numbers in some areas.



THE BUCK tried to catch some movement to determine we weren't part of the landscape. When I slowly blinked my eyes, he snorted and took off through the woods

smart the big buck. We'd divided the farm into sections and decided what time of day to hunt each part.

We drove every patch of woods we were allowed to. We walked through the thick pines of the ridge and the tall oaks of the hollow, but the farm buck was nowhere to be found. By noon we had begun to drive the smaller patches of woods, but we had no luck finding our quarry.

My brother Jim and I slowly walked to a lone telephone pole in the middle of the field and waited for the others to start the last drive of the day.

The drive started normally, with only an occasional doe sneaking by. But there was no sign of the farm buck. Just then Dave yelled out, "Here he comes!"

We were shocked as the deer ran out from under a big hemlock on the side of the field where he had been hiding. The buck had probably picked the spot because he had a clear view, and no one ever thought of looking in such an odd patch of woods.

He ran right toward us. He saw us and turned to go out through the field. As he got halfway across, my brother's Remington 222 cracked. The huge deer went down to stay.

Jim had shot the deer right behind the ear at 145 yards; it was a day we all would remember. Our dad was proud of the way we had outsmarted the buck. We took the deer out to the butcher



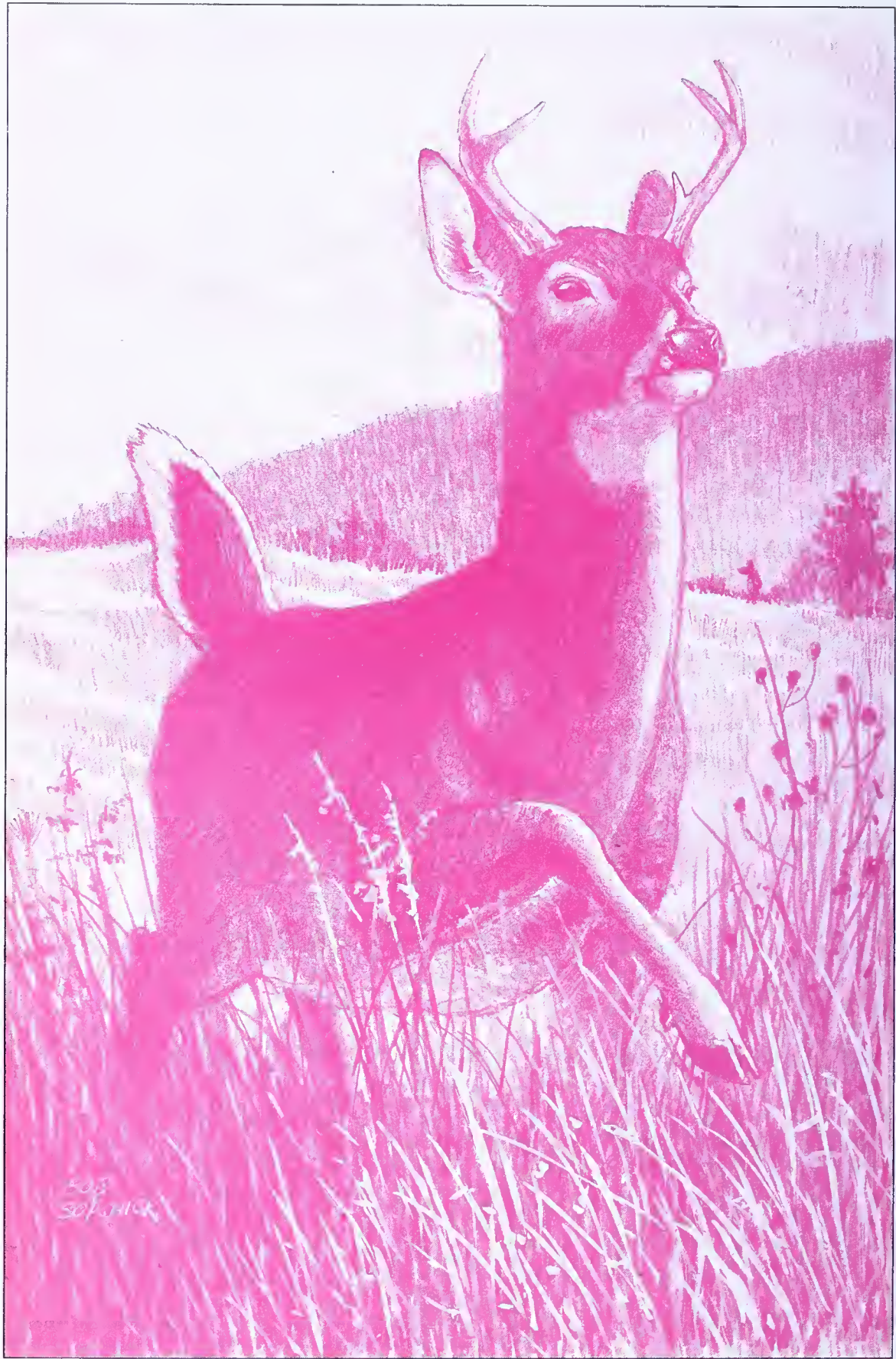
shop and weighed him on the hog scales. The farm buck weighed 210 pounds and had a 19½-inch inside spread. The nine tines were long and shiny, and that's what made it beautiful.

Jim took the deer to the local taxidermist to get its head mounted. The taxidermist couldn't find a whitetail mold big enough for it, so he got another book and finally found the right size—a mule deer mold.

The deer now hangs on Jim's living room wall. Nobody will ever forget the work and scouting it took to get the deer we called the farm buck.

Cover Painting by Scott Calpino

Visions of trophy whitetails haunt the minds of many nimrods throughout the year, but December no doubt brings those imaginations to a fever pitch. When it comes to big game hunting, whitetails, many say, represent the most challenging quarry, and when it comes to places for hunting whitetails, Pennsylvania is as good as it gets. Nowhere else do such strong deer hunting traditions exist, nor is there any place else where so many deer are taken from such a small area. They will not all be trophies like the one portrayed on this month's cover, but they'll spark the seeds for many dreams for many years to come. Good luck, and have a good season.



His First Buck

By Jim Fitser

THOSE WHO have never shared time hunting can hardly know the strong feelings that develop between fathers and their children as a result of hours, days and years spent afield together.

The first rabbit, the first pheasant, the first grouse or turkey, or whatever the particular game sought are all filed away in that special memory bank to be retrieved in later years as reminiscing takes on more importance as days afield begin to dwindle. The first buck is an occasion that lives forever in the minds of the participants.

Here it was, another opening day. As I sat comfortably in my usual spot, I wondered if today would be his lucky day. He was in a good spot at the base of a huge oak along a stone wall that separated several large fields. He was no more than 300 yards from me, so I would be able to get to him quickly if he did drop his first buck. It would be a very special moment for both father and son, if only. . . .

Frankly, I was beginning to get a bit frustrated with the buck hunting situation. Over the years I'd had the good fortune to take my share of bucks, from spikes to 10-pointers and everything in between. He had taken some nice doe and, in fact, made some rather spectacular shots, of which I was extremely proud. Among those were a couple "anterless" deer, bucks that had shed their horns. But there was this problem of his buck tag going blank while he watched me and others filling ours with at least some degree of regularity.

Perhaps if he had had opportunities and blown them, it might not have been so bad. But for reasons known only to the red gods his chances to bag a buck were extremely rare.

There was the opening day chance at a spike buck one year. I had placed him in the right spot at the right time. Un-

fortunately, because it was just after legal starting time and the light was not the best, a small inconspicuous tree was invisible to him when he held on the buck's shoulder with the iron-sighted Mauser.

The tree was enough to stop the 8mm slug and the buck was spared. Harry couldn't believe his misfortune. He recovered the slug as a souvenir.

On another opening day a close friend got a crack at a nice buck in the woodlot above the swamp. I heard the shot just as I hung the buck I'd killed, and I went to see if he needed help. He'd missed. I told him to stay put, posted Harry at the pond at the opposite end of the woodlot and proceeded to circle the swamp. If the buck was still in the area I was fairly certain where he'd emerge.

The buck eventually came out on the breast of the dam, but a local farmer had stopped to talk to Harry and distracted him just before the big buck appeared—and quickly disappeared.

Then there was November 1989. We spent the first two and a half hours of opening day on our usual stands. There had been a tremendous amount of shooting on the surrounding hillsides and in the lowlands down near the stream. At nine o'clock, Harry came to my tree as planned and we discussed our next move. While we stood talking I saw movement in the field below us.

Through the woods and a line of brush next to the stonewall I saw four doe followed by a very nervous, small-antlered buck that had just been missed by hunters on the next hillside. The deer were checking out the woods in which we stood before they entered.

"Take him," Harry said.

"No, I've killed my share of bucks," I replied. "You take him. You still have to get your first."

I should have analyzed the situation a

little better, but the jittery buck was obviously ready to make some kind of move. One jump left or right and he wouldn't be visible through the heavy brush.

I wasn't aware that Harry didn't have quite as good a shot as I would've had. He sighted and fired.

The buck twisted and took off, disappearing over the knoll in the field and probably into the woods at the bottom. Harry glanced at me with a perplexed and obviously disappointed look on his face.

Dead On

"I was dead on the middle of his chest," he said with more than a hint of exasperation in his voice. "I couldn't have missed."

His eyes scanned the field, desperately hoping to see the buck lying there. It was not to be.

From the opposite side of a brushy swamp along the edge of a hillside cornfield came three shots, followed by some shouting. I doubted the other hunters, given a second chance, had blown it.

Harry looked at me with dejection written all over his face. I couldn't be-

lieve his rotten luck. He carefully searched the lower part of the field, hoping that perhaps there were two bucks and his was down in the brush at the woodlot's edge. He was persistent, but I knew there was little chance.

I wasn't sure who felt worse, but I began to think I would never get to experience the feeling of pride or share in Harry's accomplishment when he finally got his first buck. I shook off those thoughts, and we returned to the spot from where he'd shot.

A 3-inch-thick maple bore a freshly cut gash on its left edge. It seemed there was no end to Harry's bad breaks, and I marveled at his patience.

It was time to move to the other side of the hill where my brother Lynn and best friend Jim were posted. I told Harry he should take the bottom of the hill near the pond. I would drive the swamp. There had been quite a bit of shooting along the bottomlands and I thought a buck might have sought refuge in the dense, brush-choked swamp.

Lynn took the top of the hill, overlooking the field on both sides of the woodlot. Jim posted the far corner of the woods and, from years of experience, would be expecting my drive sometime between 10 o'clock and noon. He would be alert. I warned Harry to ignore anyone who might want to stop and chat.

Although there was still ice covering the ponds, the surface water in the swamp had thawed. The standers knew it would take me at least a half-hour or more to make the drive. They would be patient and watchful.

Barely 25 yards into the swamp a noise to my right got my attention. All that was visible of the deer was a tail clamped tightly to the body, the head down near the ground. The deer sneaked off through the brush. I stopped and waited a full minute, then eased toward the spot from which it had moved. I paused again.

I slowly worked my way back and forth, stopping occasionally to listen and look, and throw a few short but hefty branches to either side. I was try-



ing to confuse the deer as to my exact location, and to possibly make them think there was more than one of me. The practice had worked often.

A shot rang out before I was halfway through the swamp. I couldn't be sure if it was Jim or Harry. I quickened my pace a bit but still stopped every few yards to listen. Deer frequently try to sneak back through after being shot at and missed, and I wanted to be ready. Another shot rang out, and although I was happy for Jim, I knew Harry's chance at his first buck had been foiled once again.

After helping Jim clean his buck, we dragged it from the woods and across the field to the road. We loaded it into his truck and drove to Lynn's spot. He had seen several doe come out from my drive and was sure Jim had scored when no buck followed.

We hung Jim's buck so he could finish cleaning and trimming it. I told Harry to stay with him because that was as good a spot as any. It was nearing two o'clock.

I headed for my truck, ready for a hot

drink and a turkey sandwich after dragging Jim's buck. As I poured some coffee and unwrapped the sandwich, several shots sounded near the stream. I debated hurrying back to my spot, but for some reason I hesitated. Then there were more shots—this time a bit closer. I set my coffee cup and half-eaten sandwich down. Several more shots rang out.

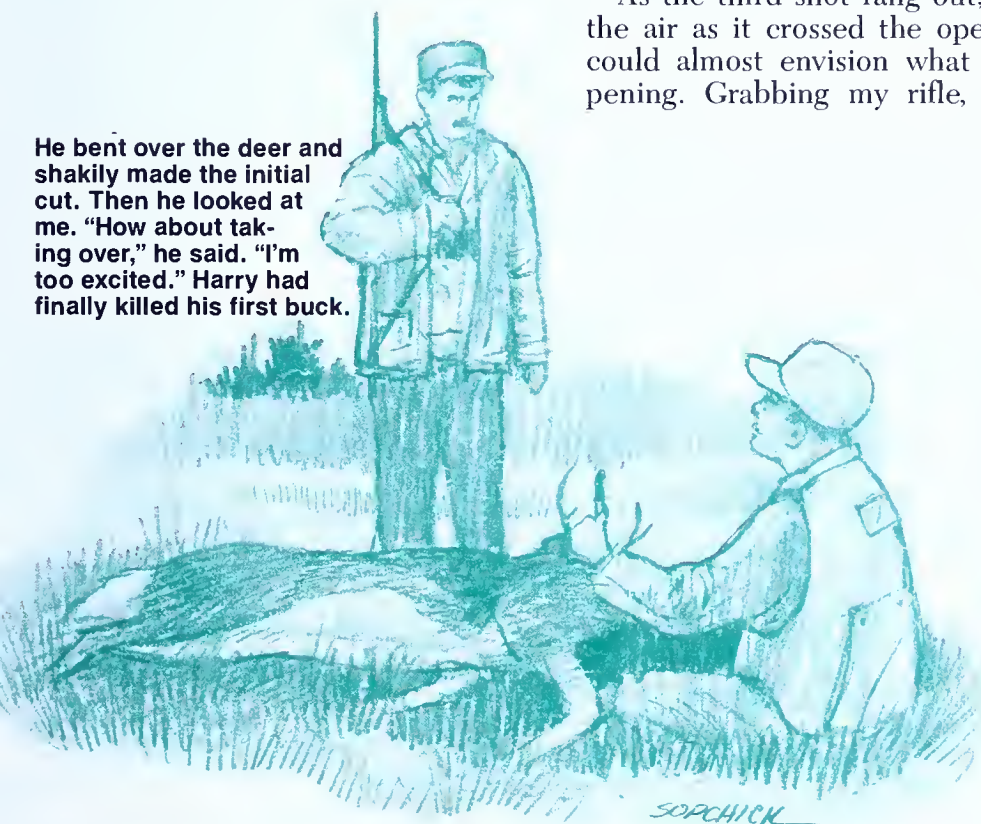
Figuring there was no sense running into the middle of the action, I continued eating my lunch. The buck had obviously escaped at least four different hunters to this point. If he made it to the swamp he would tend to stay there and hide.

Shots fired across fields have a distinctly different sound from those fired in the woods. Harry was with Jim. Jim had killed his buck so I knew he wasn't doing the shooting. It had to be Harry.

Instead of heading into the swamp, the buck had taken the second alternative and gone through the woods, come out near the pond and headed across the field toward the woods on the other side.

As the third shot rang out, cracking the air as it crossed the open field, I could almost envision what was happening. Grabbing my rifle, I walked

He bent over the deer and shakily made the initial cut. Then he looked at me. "How about taking over," he said. "I'm too excited." Harry had finally killed his first buck.



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GAME NEWS

For a Friend . . .

quickly down the lane toward the action. I heard a fourth shot, then a fifth. When I crested the knoll, Harry was standing in the edge of the field. He saw me and waved me on. I crossed my fingers and said a quick prayer to the red gods.

The look on his face was one of hope, I thought. At least he didn't look as forlorn as he had earlier that morning.

"I know I missed the first four shots," he said. "I just couldn't seem to get him in the crosshairs. I was too anxious. But I'm sure I hit him on the last shot. I *know* I was right on his shoulder before he went into the woods."

Jim yelled over to me that the buck had taken three loping jumps into the woods before he lost sight of him. He would keep his eye on the last spot he'd seen the deer and direct us when we

reached the edge of the woods some 175 yards from where Harry shot.

"I know I was right on him on that last shot," Harry repeated. "I know I was."

We worked our way into the woods and were met by another hunter approaching from the opposite side.

"That deer's down in here somewhere," he said, motioning with a wave of his hand. "I heard it crash but I never got a look at it. I think it's fairly close in here."

We began to circle, looking for blood sign or the telltale white belly against the dark leaves on the forest floor. Finally, Harry shouted: "Here. *Here it is!*"

I had wondered just what I really would feel when he got his first buck. Perhaps what I felt most was relief, which may seem a bit strange. I recalled feelings of pride, accomplishment, even awe, when I killed my first buck.

And I remembered how happy and proud my father was when I got that buck. In fact, he was so excited he nearly cut his thumb dressing the deer. Now it was my turn. Harry had a look of

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I REALIZED the kill wasn't the primary reason we hunted. It was the lessons of patience and persistence, along with the sheer joy of being in the woods with family and friends.

disbelief on his face, which soon turned into the biggest grin in Luzerne County.

"How about that," he laughed. "I told you I was right on the shoulder when I let that last one go. How about that!"

There was no doubt he was excited. His voice got louder and louder and he started to pace back and forth, holding his unloaded rifle. He patted the big-bodied buck and proudly held the five-point rack. To him, it was the biggest trophy in Pennsylvania.

I had to remind him several times to keep his voice down so he wouldn't ruin the hunting for the two sportsmen posted on the opposite side of the woods.

He bent over the deer and shakily made the initial cut. Then he stood and looked at me. "How about taking over," he said. "I'm too excited."

With great pride I performed the chore my father had done for me when I got my first buck some 31 years ear-

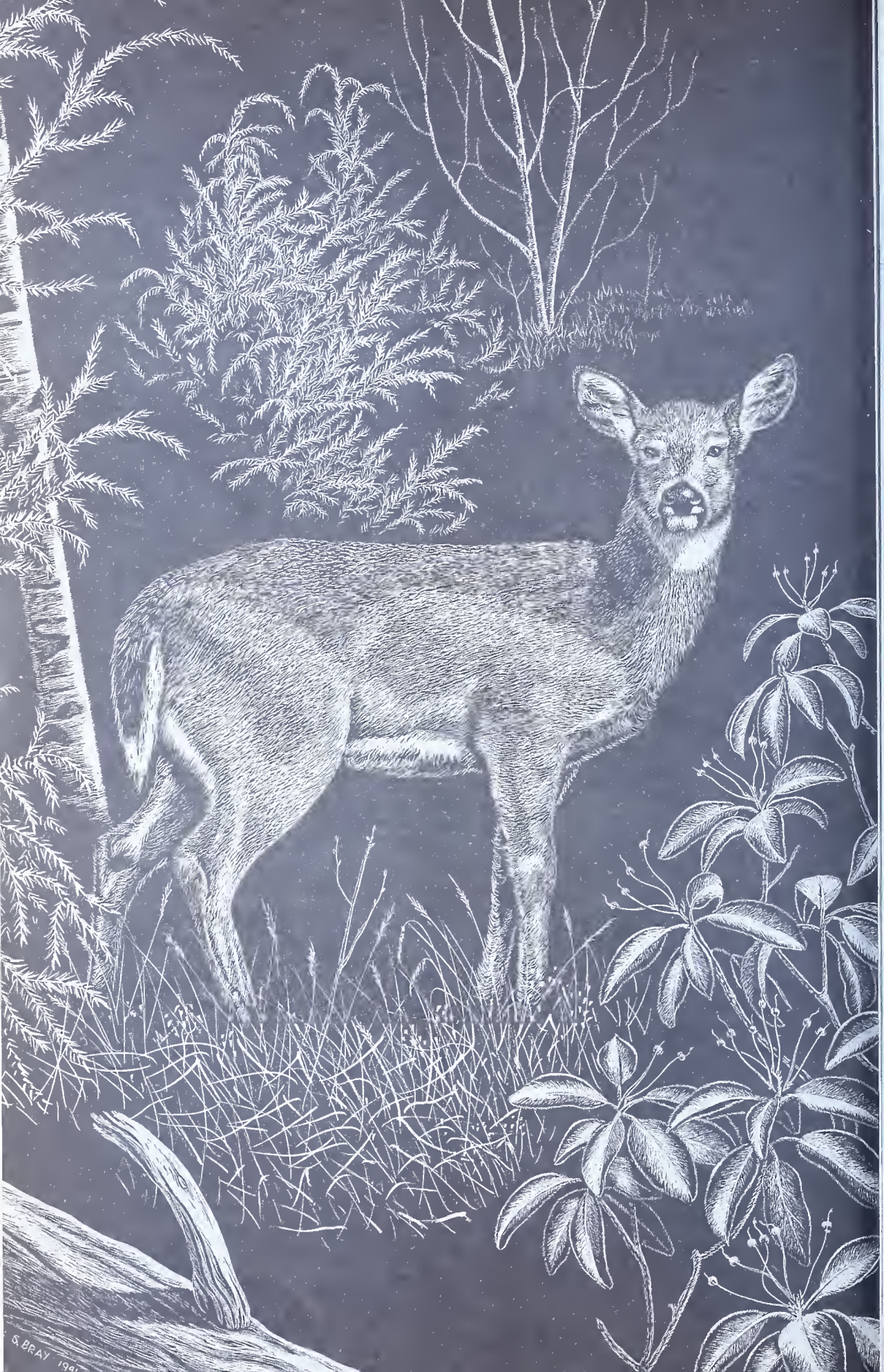


lier. I realized the kill wasn't the primary reason we hunted. It was the lessons of patience and persistence, along with the sheer joy of being in the woods in deer season with family and friends.

Now it was time for me to repay the favor. After 52 years of deer hunting, my father had finally taken his first buck.

ON BEHALF of their longtime and active association with the Game Commission's Hunter-Trapper Education program, the members of Cameron County's Bucktail Rod & Gun Club were recently presented with "Continuing The Heritage," a fine art print by Robert Christie. Accepting the print from Cameron County WCO Joe Carlos, right, is club vice president Kevin Couchman.





The Best Season of All

By Paul A. Matthews

THEY CAME without warning. Three large doe burst from the hemlocks on my left, ran downhill and bounded across the trail not 40 yards ahead of me. Before I could get the flintlock to my shoulder they had come and gone, swallowed up in the laurel and hemlock to my right.

I stood there, rifle at high port and my right thumb curled around the screw that tightens the flint in the cock. Maybe, just maybe, there was another deer that hadn't spotted me. Then I saw a doe standing in the middle of the trail looking at me. As the Lyman Great Plains Rifle came to my shoulder, I eared the flint to full cock and was conscious of the soft metallic click as I set the trigger. Without even trying, the thick-blade front sight found its place directly above the foreleg and halfway up the body. My finger caressed the trigger, and amid a blossom of smoke and fire I saw the deer leap into the brush on the far side of the trail.

She was gone—not even a telltale flag waving through the thickets to mark her passage. Had it been a good shot? Had I fired before she leaped?

At times like that it's easy to rush to where the deer stood at the moment you fired. But with a flintlock you fight that urge and spend the next few minutes cleaning the bore and reloading. I didn't want to rush down the trail with an empty rifle, only to have the deer get up and go charging off.

After taking care of the rifle I worked my way to the spot where I thought the doe had been standing. Nothing. No hair, no blood. Apparently the deer had jumped a millisecond before the rifle fired, and the ball had passed harmlessly behind her. Yet in my mind I saw the sights at the instant of firing, and they were on target.

Stepping off the trail, I went downhill through the brush looking for spoor.

I found where churning hooves had overturned leaves and thrown dirt, but there was no sign of blood. At a little creek, the spoor turned to the right headed for Goose Hollow, and in one spot I could make out where three deer had passed.

Three?

Retracing my steps, I started to make a circle hoping to cut across sign of the fourth deer. And then I saw her, piled up across a log she had just started to jump, the lower part of her brisket and the tip of her heart shot away by the heavy 54-caliber lead ball. Behind her was a trail of blood that led all the way back to the logging road, about 10 feet beyond the spot where I'd turned off into the brush.

It was over, and yet it was not over. Standing there with my flintlock, I felt suspended in a time and place I was reluctant to leave. For a few hours that morning, I had turned back the clock and walked with those who had hunted before me, living in a past that others only read about. The deer at my feet was proof of my efforts.

A great number of hunters look at muzzleloading deer season as merely another opportunity to get in the woods. True, hunting deer with a flintlock is all of that, but for the hunter who puts forth the effort, the muzzleloading deer season is a whole lot more.

Let's face it. Most deer taken during the regular rifle season are taken by ambush. I know, because I've done it many, many times—sat on a stump or leaned against a tree and waited until a legal deer came my way. And while it's a great thrill to watch a legal deer approach your stand, it doesn't compare to working yourself within black powder shooting distance of a deer.

Look at it this way. Regardless of caliber, it takes a round ball from a muzzle-loader about a tenth of a second to

cover 50 yards. And when using a flintlock it takes about another tenth of a second from the time you press the trigger until the ball exits the barrel.

During all those two tenths of a second a deer moving at 20 miles an hour covers almost six feet. If you were using a 30-06 with 150-grain bullets for the same shot, the bullet would strike in about one-quarter of the time needed for the flintlock, and a running deer would move only about 18 inches.



IF YOU watch a deer moving through the woods during hunting season, you'll see that it, like the still hunter, moves only a few steps at a time and then stops to listen and check out the area.

Taking those considerations into account, it's futile to shoot at a running deer with a flintlock. It's also dangerous to other hunters and is conducive to crippling deer.

Poke Around

Many muzzleloader hunters try to hunt deer by drive hunting. While two or three hunters can poke around the woods to each other's advantage, organized drives with a large party while using flintlocks lose more deer than they gain because the deer are running as they go past the standers.

The purpose of the special muzzleloading deer season is to hunt in a primitive fashion with a primitive firearm, just as our forebears did when the

Susquehanna River basin was the western frontier. You won't get as many deer with the flintlock as with a cartridge rifle, and you will work a lot harder for those you do get. But there is no satisfaction quite equal to that of taking a deer with a flintlock while stalking the woodlots. When you have taken your deer that way, then you can say: "I did it the way Lew Wetzel or Daniel Boone would have done it 250 years ago. I've passed the test."

The most important factor in still hunting is to move extremely slowly. If the woods are noisy with leaves that break like cornflakes, I follow old logging roads, usually taking six or eight very slow steps and then stopping to study the surrounding area before moving on again. With a good quiet snow on the ground, one can move off the trails and greatly increase the chances of spotting a deer. But, on the trails or off, you must move slowly and quietly.

Everything that moves through the woods makes some noise—squirrels, chipmunks, deer and even turkeys. But if you watch a deer moving through the woods during hunting season, you will see that it, like the still hunter, moves only a few steps at a time and then stops to listen and to check out the area.

This is of special significance because the more closely the hunter imitates the actions of the deer, the less attention the deer pays to the hunter. Deer quickly distinguish the sound of a man walking through the woods from the sound of another deer or a hunter walking like a deer. In my 50-plus years of deer hunting, I've taken a number of deer as they stood up from their beds. And I've seen a far greater number that I couldn't shoot because they weren't legal or because they got up on a dead run instead of standing quietly for a moment as they often do.

In addition to walking slowly in the woods, there are one or two other things a hunter can do to quiet his movements. First, he can avoid wearing heavy leather footgear with sharp-edged, hard rubber soles that cover

too much surface area. Far better is a pair of leather top, rubber bottom boots with a soft flexible rounded sole that covers no more area than necessary. Boots with soft rubber soles often let you step on a small branch or twig without breaking it. The less area the sole covers, the fewer leaves and twigs you will have underfoot.

One's choice of clothing is equally important. Much of the outdoor garb made today has a hard surfaced fabric that is both water repellant and wind-proof. It's also noisy as you work your way through the brush, making a distinctive noise that can only be a man. Far more quiet for the hunter poking around woodlots is soft fabric, preferably wool, that doesn't make a rasping sound as a branch or briar drags across it.


The Smart Hunter

As to the firearm itself, there are dozens of books and magazines on the market that thoroughly cover the subject. The smart hunter will save himself years of frustrating trial-and-error blunders by reading this material and adapting it to his hunting situation.

While the flintlock might be considered a primitive arm as compared to modern high velocity rifles, when used within its range limitations on standing deer, it is as effective as a 30-06. A 54-caliber round ball will go in one side of a deer and out the other, smashing shoulder joints and other bones during its passage. I've made shots with the 54 that spun the deer around and dropped it instantly.

Where the hunter using a 270 or 30-06 can sit on a stump and thread a bullet through the brush at a deer 150 yards away, the flintlock hunter must use his hunting skills to close the range to 50 yards or less. The black powder hunter must pass up many shots the modern rifleman can take, opting in-

Pennsylvania Game COOKBOOK



Pennsylvania Game Cookbook is a 96-page collection of delicious recipes submitted by **GAME NEWS** readers. It includes methods of preparing all kinds of game available in Pennsylvania, plus some recipes for moose, elk, and other species. \$4.00 delivered from **GAME NEWS** office.

stead for surprising a deer in its bed at a range of only a few feet.

Oh yes, it can be done. And when the task is accomplished, the flintlock hunter can take pride in the knowledge that he did it by using hunting skills and woods lore. That's what the flintlock season is all about—an opportunity to hunt in the truest sense of the word, an opportunity to prowl the woodlots as they were stalked 250 years ago by the hunters who came before us. It's the best season of all.

Blue Ridge Acquisition

By Joe Kosack
PGC Information Specialist



A recent agency land purchase in the Poconos ensures a vitally important, ecologically diverse property will remain forever wild.

WILD PLACES are increasingly being gouged by developers' steam shovels and flattened by their graders throughout the state. Perhaps nowhere is the loss more keenly felt than in the Poconos as people push deeper into the forests to escape the swelling metropolitan areas of the Eastern Seaboard.

A recent Game Commission purchase in the Poconos—made possible in large part by The Nature Conservancy and Wildlands Conservancy—ensures at least some pristine land will remain for wildlife and the people who enjoy it.

The newly purchased SGL 312 is a 3,828-acre tract located primarily in Wayne County, with smaller portions in Lackawanna and Monroe counties. It's

a tapestry of rolling forested hills divided by bogs and swamps, an untamed piece of wilderness.

Located about 15 miles southeast of Scranton, the tract features a variety of wildlife habitats. A 15-acre glacial lake and several beaver ponds dot the property, and wetlands of all types border the tract's many waterways. Small feeder creeks dump into the Lehigh River as it twists and turns through the tract's midsection. In addition, the property's woodlands contain large rhododendron thickets and hemlock stands.

Game Commission efforts to acquire the property spanned several years, and in 1990 a deal was struck with Blue Ridge Real Estate Company of Blakeslee. The firm was somewhat reluctant

to sell the property, which is flanked by 4,200-acre Tobyhanna State Park, because it originally had potential to be developed as a resort community. That was the fate of nearby Big Bass Lake, a 1,200-acre tract that was subdivided into 1,650 residential parcels.

The Blue Ridge tract had other strong selling points, too. Its wetlands contain an estimated 175,000 cubic yards of merchantable peat, which is used by nurseries and landscaping businesses for bedding. It was also considered a promising location for building water reservoirs or recreational lakes.

The property's commercial land-use possibilities, however, became severely limited in the late 1970s when new regulations restricted development in and around wetlands, which make up about 40 percent of the tract. In addition, residential development in the area has slowed considerably since the 1970s so developers haven't been anxious to buy property for new resort community projects. Given those conditions and restrictions, the market value of the property dropped.

Throughout the mid 1980s, Blue Ridge negotiated with the Game Commission to sell the tract, but the organizations couldn't agree on terms. The impasse dragged on until The Nature Conservancy, based in Arlington, VA, intervened on behalf of the agency. But even the conservancy, which has been involved in land acquisitions to protect natural resources for 40 years, found working out a deal acceptable to Blue Ridge and the Game Commission to be a difficult task. After about three years of working as an intermediary, though, the conservancy finally succeeded.

To finalize the deal, the conservancy called on the Wildlands Conservancy, Emmaus, to help finance the land purchase because the Game Commission, due to budgetary constraints, was unable to pay for the tract at the time.

SGL 312 contains a number of small feeder creeks that empty into the Lehigh River, which winds through the middle of the tract. Rhododendron thickets and hemlocks stands line many of the creeks.

In the arrangement, the conservancies bought the property for \$535 per acre. In turn, they sold it for \$525 per acre to the Game Commission, which paid for the property in two installments, one in October 1990, the other in October 1991. The conservancies expect to recover the \$10 per acre price difference through contributions from sportsmen's organizations and conservation foundations.

Financial Assistance

Because the Game Commission is allowed by law to spend no more than \$400 per acre for game lands, financial assistance was needed to swing the deal. Support came from two sources. About half the money used to buy the property was obtained through the National Park Service's Land and Water Conservation Fund. The National Fish & Wildlife Foundation also contributed \$100,000 toward the tract's purchase.

"No Trespassing" posters were a common sight around the property before it became game lands because Blue Ridge leased portions of the property to various sportsmen's clubs. Before Blue Ridge obtained the tract, the Monroe Water Supply Company owned it, and prior to the water company's purchase



in 1900, the Tobyhanna & Lehigh Lumber Company had held the property.

Interestingly, in the 1940s the U.S. Forest Service conducted deer browsing studies on the tract. Signs of a garage and Quonset hut constructed to serve as a base can still be found. The study area was called the "Pocono Experimental Forest" and contained fenced-in areas that were monitored for forest regeneration. The foresters lived in the Quonset hut for several years until they completed their research.

Much of the property's upland terrain is comprised of northern hardwoods such as beech, birch, maple and black cherry. Large rhododendron thickets and towering stands of hemlocks belt the hillsides and flank many of the streams. Red spruce also dot the woodlands neighboring moist areas. No clearcutting occurred on the property in the 29 years Blue Ridge owned it, but select cuts were conducted over the last two decades.

Blueberry and cranberry bushes cover the spongy sphagnum moss carpet surrounding many of the property's ponds and creeks, especially at Lehigh Pond. This mossy mat grows from the layer of peat below. Widely scattered native tamaracks overshadow the fruit-bearing shrubs. In addition, two rare plants—Labrador tea and bog rosemary—are found in the wetlands.

SGL 312 is located on the Pocono Plateau, its terrain carved by the Wisconsin Glacier that crawled over the tract 12,500 to 22,000 years ago. As the ice mass receded to the north it left a terrain that evolved into a diverse assortment of swamps, bogs, marshes and waterways. Many of the property's wetlands are reverting glaciated ponds that have slowly filled with decomposed vegetation over the last several centuries. Lehigh Pond, however, still exists as a glacial lake.

The tract's wetlands are somewhat isolated from the popular recreational facilities in the Poconos and offer plenty of food and shelter. They provide ideal habitat for waterfowl and are heavily used by migrating and nesting

ducks and geese. SGL 312 is also located in the Pennsylvania Waterfowl Management Plan's Tobyhanna-Goldsboro Focus Area (see August, p. 11), one of 12 regions the Game Commission has targeted for increased wetlands management.

The tract's wetlands are primarily used by black and wood ducks, mallards and Canada geese; those species have maintained good breeding populations in the Poconos. River otters, beavers, mink, muskrats, great blue herons, Virginia rails, woodcock, and a variety of reptiles and amphibians also share the wetlands habitat.

White-tailed deer and black bears, too, are partial to the swamps, marshes and bogs. Deer feed on the shoots and seedlings, while bears loot the berry bushes. The big game animals also use these areas as refuges to escape summer heat and hunting season pressure.

Area residents say the property is loaded with bear and deer. Others claim the snowshoe hare hunting in the meadows and swamps is about as good as one can find in Pennsylvania. SGL 312 also features good turkey, grouse, waterfowl, woodcock and squirrel hunting.

Deer and bear hunting has always been the property's biggest draw because it always seems to harbor good numbers of both species. But trying to take one can be a season-long odyssey if the quarry continually eludes the hunter in the swamps, bogs or rhododendron thickets, places that seem to require waders or a chain saw to get into and hunt thoroughly. Such difficulties, however, ensure the land will always be special to those who hunt it; successful sportsmen value their trophies all the more for the strenuous physical and mental effort they put forth to hunt these areas.

But not every place on SGL 312 requires bulging muscles or special gear or strategies to hunt deer and bear. There are lots of trails and logging roads on which to still hunt and a power line right-of-way and meadows to watch from a stand. Hunters working



THE PROPERTY contains a variety of wildlife habitats, wetlands chief among them. A 15-acre glacial lake and a number of beaver ponds store a lot of water and provide nesting and resting places for waterfowl and a number of other species. SGL 312 is located in one of the state waterfowl management plan's focus areas.

the tract for the first time may find sneaking around in the shadows of the hemlock stands or just inside the brushy meadow edges to be rewarding.

Small game and turkey hunters will also find plenty of promising areas. Snowshoe hares, cottontails and grouse can be found in the meadows and brushy swamps, and along their forested edges. The hilltops and gentle slopes also provide some good turkey, grouse and squirrel hunting opportunities, especially in areas with stands of evergreens.

SGL 312, however, offers more than hunting prospects. Good trout fishing can be found on several stretches of the Lehigh River. Nature observers and photographers can also have a great time hiking the trails and exploring the wetlands for wild things. It's the kind of place that seems to have what every outdoors enthusiast is looking for.

Very few habitat improvements will be made to the property. Right now

there are no plans to add parking areas or access roads; users will be restricted to traveling on and parking along Route 507, which bisects the tract, and township roads.

Bordered by a resort community, and once owned by one of the region's most successful real estate firms, SGL 312 has been threatened by commercial development for decades. Now, however, it will be another outstanding addition to the Commission's game lands system. Many people in the Goldsboro area are quite pleased about that; they've called the Game Commission's Northeast Region office in Dallas to tell the agency as much.

So if you happen to be in the Poconos and are looking for something to do, stop at SGL 312 and give it the once-over. Hike a few trails, visit Lehigh Pond or scout the woods and see if the land has the wild things that make your pulse quicken. It seems doubtful you'll consider the trip wasted.



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CHARLES

Two Seasons a Day

By D.C. Dufford

THE GROUSE had sent dry leaves swirling along the ground as it flapped its wings in a futile attempt at flight. For a moment I'd wondered how it had become injured, but then I looked down and noticed the tiny balls of fluff drifting away just ahead of my feet. The grouse was perfectly fit, and she was trying to distract me from her young.

I remembered the event two years later as I stood in the same spot. The memory almost prevented me from noticing the four deer I'd just spooked.

Three of them had already vanished over the top of the hill by the time the last in line disappeared behind a cloud of smoke. When the air had cleared again I could see only trees. I took my time reloading the flintlock, then waited a few minutes more before starting the climb to see if my shot had connected. There was enough snow on the ground to make tracking easy, and I trailed them far enough to be sure I'd missed. I was a little upset with myself, but I was encouraged that I'd finally had an opportunity.

I was fortunate enough to hunt almost every day of the 1988-89 muzzleloader season, and so far that had been as close as I'd come to filling my tag. I'd hoped to get one early in the season so I might get in a little grouse hunting before it was all over for the year.

My wife was off from work on Wednesday, and she volunteered to watch the kids so I could hunt. I hadn't seen any deer on my morning hunts, and because grouse season was only open four more days in Butler County I decided to take the shotgun out first and trade it in for the flintlock at noon.

I was in no hurry to get an early start; it was shortly after eight o'clock by the time I stepped out the back door into a clear, cold morning. It had begun to

snow the day before, and now the sun shined brightly on four or five inches of fresh snow. As I walked over to unsnap Angus, our Lab pup, I noticed the new snow was going to make the walking much quieter than it had been the last week or so.

Angus was too young then to be of any real help for hunting. He wasn't much larger than a beagle, and half of that was feet. Still, I wanted to take the little guy along on walks because he seemed to enjoy the hikes we'd taken before muzzleloader season.

We cut across the pasture in back of the house and turned left toward the gasline. Following it to the top of the hill we turned right, entering the thick brush and crabapple to begin our hunt. Roughly 200 yards behind the house we put up the first birds of the day. Problem was, if you could call it a problem, they weren't grouse but turkey. The three big birds were roosting in one of the larger trees; the area was so thick I wouldn't have seen them if they hadn't flushed.

I'd been seeing turkeys on and off since October. During the first week of buck season, I spotted a flock of 12 and for 20 minutes turkey watching took precedence over deer hunting.

I continued fighting my way through the thick cover to the edge of the hill. The woods opened so I went down the steep hillside until I came to Wolf Creek. I was a little surprised that I hadn't flushed any grouse by that time, but there was still a chance of kicking one out of the hollow. The bottom of the hollow is a combination of thick cover dotted with a few small open swampy areas that were frozen beneath the snow.

The only grouse of the morning roared up from a tangle near the base of a tree. Just like a grouse, though, it succeeded in keeping plenty of cover be-

tween us. There was perhaps a fraction of a second when the bird presented me with a clear shot, but I didn't like the angle. I guessed that I stood a 50-50 chance of rattling a neighbor's house with spent shot, and I didn't want to risk it.

Just the year before, I'd passed up shots at deer on two separate occasions for the same reason. Both times it was during the muzzleloader season, and in both instances I probably could have taken the shots without mishap. I made up my mind a long time ago that I don't actually have to bring home game from a hunt, and therefore I don't have to take shots involving even the smallest amount of risk. I often end up passing on more shots than I take, but the land-owners always welcome me back for future hunts.

The pup and I got back to the house at 11 o'clock. The temperature was only in the low 20s, but with all the ground I'd covered I was more tired and hungry than I was cold. I fixed a couple of sandwiches and a cup of hot tea, and sat down in my chair. It felt good to sit down, really good. As for my afternoon

deer hunt, I knew exactly where I wanted to be and when I wanted to be there.

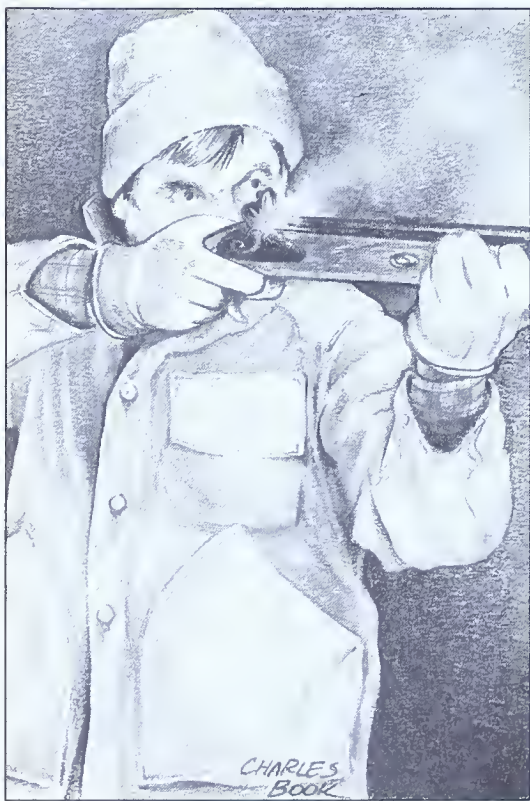
Across the road from the house is a large field, part of which is fenced-in pasture. At the far end of the field is a wooded area, and after that the land suddenly makes a steep drop. Just the day before I had gone out along the pasture fence, slowing my pace as I drew near the tree line to take a cautious peek down over the hill into the woods. The first thing that caught my attention was a big fox squirrel just across the fence from me. Farther down at the bottom, I also spotted the tails of four deer waving goodbye as they quickly vanished through the trees. The wind had been at my back as I walked across the field; the deer had been tipped off by my scent.

Later that evening I was looking over my notes and discovered this had been the fourth time since the end of buck season that I had spooked deer out of the same spot at about the same time each afternoon.

I planned to be waiting near there no later than noon, but my chair felt so comfortable that I'd completely forgotten about the time until my wife asked me when I was going out again. I looked at the clock and saw it was already 12:10. I jumped up, mumbling something about getting ready fast or I was going to be late.

My wife thought my reaction was pretty hilarious, as though I had an appointment or something. She had no faith that I would ever get a deer with a flintlock and, in fact, was still a little upset with me for swapping my 30-06 for a gun that "only shoots once and not half as far." But, late or not, my plans were made—and that included putting on an extra layer of warm clothes because I'd be sitting instead of walking. It was almost 12:30 by the time I made it out the door.

THREE of the deer had already vanished over the hill by the time the fourth disappeared in a cloud of smoke. I took my time reloading before going to see if I'd connected.



As I crossed the field I realized that, along with the fresh snow, the wind had also changed in my favor. Instead of blowing against my back, the wind was now from the west, slapping hard and cold against the left side of my face. At least, I thought, my scent would be carried out along the side of the hill instead of into the hollow where, hopefully, the deer would be.

A careful look over the edge of the hill into the woods revealed no game. I couldn't help but wonder if I'd gotten there too late or whether the deer would even show. I crossed over into the pasture, and worked my way to the stand I'd chosen.

My stand was at the base of a huge oak about 20 feet below the top of the hill. On the downhill side of the tree, the roots protruded out of the bank to a kind of armchair. I'd sat there once with my 22 during squirrel season, and I knew I'd have a good view of the area I

wanted to watch. I cleared away some snow and sat down on my insulated seat, trying to make myself as comfortable as possible. I was determined to remain there until shooting hours were over, if need be.

I'd been there only about 10 minutes when I caught a glimpse of movement toward the top of the hill about 100 yards to my left. I strained my eyes for a full five minutes trying to make out the form of a deer. The wind was blowing from that direction and made my eyes water, but I kept looking. I heard noises near the bottom of the hill directly below me, but I dismissed them as squirrels. I finally gave up looking into the wind and slowly turned my head, hoping to at least get a look at the squirrel.

I suddenly forgot about the freezing wind when I realized that my squirrel sounds were being made by three deer not much more than 50 yards away—just beyond the pasture fence at the

I SUDDENLY REALIZED the “squirrel” sounds I'd been hearing were being made by three deer not more than 50 yards away—just beyond the pasture's fence. They all took turns looking at me, several times each. I was tempted to try to slowly turn my rifle toward them, but they were too close.



bottom. A quick look showed no antlers. They came a few steps closer until the one in the lead stopped as it reached the fence. They all stopped. One was looking right at me.

Now I had a problem. My 54 caliber Thompson/Center Renegade was loaded, primed and lying across my lap. But how could I point it in their direction without spooking them? The one that had been staring at me finally looked away, but then one of the others fixed me in its gaze. They all took turns looking at me, several times each. Meanwhile, I had a good opportunity to look them over, and as far as I could tell there wasn't any noticeable size difference between them. They were all big.

The staring game probably lasted only 30 seconds or a little more, but it seemed to me I could feel my whiskers growing. I was sorely tempted to try to slowly turn the rifle toward them, but I knew I was both too close and too out in the open to pull it off. I thought the jig was up when all three of them were watching me at the same time.

But shortly after that, they all looked away. I was glad I'd waited, and so surprised that I almost blinked and missed my chance. I'd just put the gun to my shoulder and cocked it when the lead deer again looked my way. I don't know why I chose the deer in the middle, but that's the one my sights were on when I touched off the set trigger.

I'd expected that everything would vanish behind a cloud of white smoke as soon as the gun went off, but the wind quickly carried the smoke away. The deer in the middle was dead before it hit the ground, right where it had stood. I didn't bother to reload; I just watched as the two remaining deer bounded away through the trees. I stepped off 45 yards down the steep hillside to where the doe was lying. I couldn't help but wonder what my wife would think about the flintlock now.

The story isn't over, though. The season before had been my first year of hunting with a muzzleloader, and my nephew, John Gordon, and I hunted together every chance we'd had. We didn't have any luck that year, and this year we were only able to get out together during the first few hours of opening day. When I phoned John that night to tell him of my success, I found out he had also bagged a doe that same day. As if that wasn't enough of a coincidence, our watches were both pointing to one o'clock as we filled out our deer tags.

This was the first chance I'd had all season to get in a whole day of hunting, and I only hunted for 3½ hours altogether. By the time I dragged the deer back to the house I was ready to call it quits for the day. After all, I still had three more days to try my luck on grouse.

Wild Game: A Healthy Choice

Hunters have long realized the benefits of eating wild game. For people who are concerned with the amount of fat and cholesterol in their diets, wild game is an alternative to domesticated meats. The National Cholesterol Education Program recommends healthy adults should limit their cholesterol to 300 milligrams per day, and fat should make up less than 30 percent of their total daily calories. The following figures show wild game to be a healthy choice compared to domestic fare. The beef sample used is a well trimmed USDA standard grade. All samples are 100 grams (3.5 ounces); figures for chicken and turkey samples don't include skin. One hundred grams of beef contain 2.7 grams of fat, 69 milligrams of cholesterol and 158 calories; pork has 4.9 grams of fat, 71 milligrams of cholesterol and 165 calories; domestic chicken has 0.7 grams of fat, 58 milligrams of cholesterol and 140 calories; domestic turkey, 1.5 grams fat, 77 milligrams cholesterol and 146 calories. The figures for wild game are: white-tailed deer, 1.4, 113, 153; squirrel, 3.2, 45, 146; rabbit, 2.4, 77, 144; and turkey, 1.1, 58, 158.

290 IN, 110 OUT

By Karl G. Hanosky, Sr.

THE FLICKERING LIGHT bouncing off the bare limbs cast eerie shadows all around as the 70-year-old hunter, flashlight in hand, approached the 4-mile trek in the spooky darkness. Then, abruptly, the scenery changed and the flashlight shined on the somber hemlocks. They were the signal for the hunter to stop, take a bearing from his compass, leave the trail and begin his climb up the hill. The skillful woodsman kept glancing at his compass, maintaining his 290-degree heading. Holding the instrument in front of his body and orienting on a tree or boulder maybe 20 paces ahead, he made his way up the ridge. Later in the day he'd use the 110-degree bearing to find his way back out.

For more than half a century, on every opening day of buck season, Gustave Hanosky has left his Warren County cabin well before daylight so he'd be the first person in the deep woods.

Decades ago, while summer hiking, Gus was miles from any road when he discovered a saddle on a steep hillside. Scouting the saddle thoroughly, he discovered plenty of deer sign and a large rock protruding above the saddle. Using his compass, he walked out of the thick forest to a clearly marked place on a well-used trail.

Later, he thought, he would return to "his" rock and wait the approaching daylight of opening day. Many times over the years he saw deer roaming nearby and he would look at this watch, patiently waiting until the season officially began. Invariably, it seemed, within three hours, the air would ring from his gunshot.

Over the years Gus tagged 41 deer, most of them bucks, and almost all of them he got from the rock. In many years four other Hanosky brothers hunted with Gus out of their Warren



OVER THE YEARS the writer's father tagged 41 deer, most of them bucks. He killed most of the whitetails from the same remote spot he'd hunted for more than 50 years.

County hunting camp. All of them are in the Happy Hunting Grounds now; two of them died in the very woods they all loved so much to hunt.

Gus is the only one left, possibly the end of a legendary era. Gus is also my dad, unquestionably the greatest deer hunter I know.

As a young boy I grew up following on the heels of this steel worker. I was nurtured on his unsurpassed woodlore. He could outwalk, outhunt and outfish anybody I knew.

Pennsylvania deer hunting is Dad's favorite sport. And all his years of hunting taught him how to "post"—his expression for standing in one spot along a deer trail, all day if necessary. His



GUS POSES in front of his Tarentum house with a Warren County buck he took on opening day in 1959. Gus's method for success involved standing at one location and allowing hunters' movements to push deer to him.

wise old strategy is to let the other, impatient hunters get up and keep the deer moving.

Just a couple of years ago, after dropping yet another buck from his rock, the excitement in Gus's voice as he told many friends and relatives of the hunt showed the thrill of the chase is as strong as ever for him.

A year ago, at 71, Gus didn't make it to his post in the saddle. Age and arthritis have slowed him down, it seems. But he got his buck. Walking just 200 yards from the backdoor of his Allegheny County home, he stood on stand for just

a half-hour before dropping a 3-pointer. Perhaps that was the beginning of a new technique for the elderly nimrod.

His way of dragging a whitetail from the mountain is one of Gus's favorite stories. Gus says to carry a short length of strong nylon rope, and after the deer is field-dressed, to find a strong stick about 12 inches long. Next, cut a circle around the center of the stick, tie the rope around the notch and the other end around the deer's neck. The stick makes an ideal handle for dragging—especially if two people are involved—and if the deer is a buck, the antlers will automatically lift off the ground while being pulled.

Gus used his cabin for more than just hunting. From the front porch of "Gus's Little Acres" as he called it, he enjoyed watching black bears wander through the meadow, turkeys gobble from the front lawn, and flying squirrels gracefully glide through his front door. Raccoons were known to steal scraps of food and many other animals have delighted us all.

Perhaps Gus's most memorable experience happened some time ago. During a bear season, Gus's sister Hattie, who might weigh 90 pounds soaking wet, downed a bear with one shot. When she poked it with her gun barrel

Landowner Reporting Requirements

Landowners who harvest deer or turkey on property for which they are not required to be licensed must nonetheless report their kills. Whenever you harvest a deer or turkey on your own property, send a postcard to the Commission's Harrisburg headquarters with the following information: your name and address; date of kill (month/day/year); county in which killed; township in which killed; zone of kill (for turkeys only—zones are listed in the hunting and trapping digest); state whether antlered or antlerless deer (deer having no antlers or both antlers less than three inches long are antlerless); if antlered deer, state number of points; hunting arm used (rifle, shotgun, handgun, muzzleloader, bow, compound bow.) The information must be mailed to the Commission within 10 days of kill.



GUS HUNTED with his brothers, all of whom have passed on, for many years. He also spent a lot of time on the porch of his Warren County camp, often just watching wildlife in the front yard.

she got no response, so she figured the bear was dead. She went to get Dad to help field-dress the bear and drag it to camp. But when they returned to the spot, the bear was gone.

Scanning the lightly snow-covered ground, Dad quickly surmised that the bear had gotten up and sauntered off. Although a pool of blood remained where the wounded bruin had lain, only a most skillful tracker such as Dad could have followed the occasional drops of blood in the fallen leaves. Never one to leave a wounded animal in the woods, Dad became increasingly anxious as the afternoon began to turn into evening.

With his sister following close behind, Dad tracked the bear through the tangled brush. He was so close he could hear the animal thrashing ahead. Holding his 32 Special in his right hand, he

slowly parted the laurel with his left. Surprise!

A ferocious growl and gnashing teeth just inches away greeted Dad. Man and bear each backed up. It was impossible to tell which was more startled. Dad then snapped up his rifle and quickly fired two shots into the bruin's side, ending what was most certainly one of Dad's most memorable hunts.

I know of no other man who loves the Pennsylvania woods as much as my dad. My brother and I have inherited his passion. I'm the oldest and am an avid hunter, fisherman and free-lance outdoor writer. My brother, Fred, is an active deputy wildlife conservation officer.

290 in, 110 out, the hunting legacy of Gus Hanosky will be remembered a long time, and his heritage will certainly be passed on to other generations.

Thoughts While Walking

I have little patience for people who take the Bill of Rights for granted. The Bill of Rights, contained in the first ten amendments to the Constitution, is every American's guarantee of freedom.

—Harry S. Truman



k Rosato

The Outlaw Trapper of Willow Grove

By William Wasserman

WCO, Wyoming County

THE OLD POACHER never paid much attention to game laws. He did things his own way and would have been better off had he been born a hundred years earlier.

I first met Zachariah Slugg back in January 1979 while stationed in Montgomery County. He had been trapping private property without permission, and the landowner contacted Deputy Ronald Staffieri. Although the Game Commission does not enforce trespass laws, Staffieri checked to see if the trapper was complying with the Game Law.

As it turned out, Slugg didn't have a license and all his traps were untagged. Ron contacted me by radio, and I traveled out to Willow Grove and arrested Zachariah Slugg.

At the time I had no idea this was just the beginning of a history of incidents with the outlaw trapper that would last for the next five years. In the end, Slugg would be arrested for 15 game law violations and his fines would soar into the thousands of dollars. And to this day as you read this, he is still denied the privilege to hunt and trap in Pennsylvania.

It was only 10 months after my first run-in with Slugg that he was caught again. Deputy Staffieri came upon a 10 x 10-inch trap set in a wooded area. This type of trap is designed to capture large animals, such as beaver, and the Commission prohibits setting these big traps outside of waterways.

Staffieri was surprised to see the trap was tagged with Slugg's name and address; the old trapper paid another fine to the Game Commission. I was beginning to get a nasty feeling about Slugg, but hoped this would be the last I would hear of him.

Two weeks later Staffieri received a telephone call alerting him that Slugg was trapping in Willow Grove. Ron suspected he might be trapping illegally. He drove out and located Slugg's truck. It was a cold winter day, but the determined deputy waited by the truck until the trapper returned.

Once again Slugg was caught with untagged traps, a mere 30 yards from a house. The homeowner was furious. Slugg did have a hunting license (which is what was required of trappers at that time) but kept it hidden. Obviously he didn't want anyone to know he was setting traps, but furtakers must display their licenses so his ploy became one more violation to add to an already extensive list.

Slugg paid a fine to the Commission that day. It was his fifth offense in less than one year. He also lost his hunting and trapping privileges for two years. Several years passed before I had to deal with him again.

It was early November 1983, just prior to the opening of trapping season, when Ron Staffieri received a complaint about a squirrel in a trap. Thinking at first that it was the typical complaint about someone live-trapping nuisance squirrels from his property, Ron listened to the caller. He expected to soon find himself in the middle of two squabbling neighbors, one wanting the squirrels in the neighborhood, the other demanding they be removed.

But Staffieri got a jolt when the caller said he'd been confronted by a grizzled old trapper who'd claimed the trap. Upon further questioning, Ron learned it was Zachariah Slugg who had caught the squirrel.

Ron and I investigated and found it



was a fox trap. Slugg wasn't an individual who would waste time trapping for squirrels—they have no fur value. But foxes were bringing good money, and I reckoned that Slugg was getting a jump on the season.

At this point I had to convince a district justice that Slugg was poaching. I wanted to secure a search warrant for his home because I was certain he would have furs stashed there.

I made a telephone call to my neighboring officer and friend Edward Bond in Bucks County and asked if he could assist me. Ed gladly agreed to help, and we traveled to the district justice's office in Willow Grove. As we wound our way through a jungle of traffic lights and congested highways, I filled in Bond on Slugg's background.

Getting Nowhere

I sat with the district justice for what seemed an eternity, trying to explain trapping, but I was getting nowhere. He was city born-and-raised, like most people in Montgomery County. The justice knew little about trapping, and not much more about animals in general. I didn't blame him for his lack of knowledge on the subject, but it looked doubtful he would allow the search.

I don't quite know what made me take such a persistent stand that day, but I refused to back down and eventually persuaded him to grant the search warrant. I believe he based his decision entirely on my speculations about Slugg. He knew I had a solid background on him, and that, coupled with my knowledge of traps and trap-

ping, must have given me the edge I needed to sway him.

Later, as Ed Bond and I drove in the direction of Zachariah's house, a sudden chill swept down my spine. I'd been thinking about the search warrant and suddenly realized we might not find anything. I would have to eat a lot of crow if I failed to turn up any pelts, and I worried that my credibility with the district justice in Willow Grove would deteriorate if the search drew a blank.

But I knew Zach Slugg was an accomplished trapper and had caught his share of fur, and based on his past violations I felt certain I was on to another one here. I hoped my desire to come up with a solid case against Slugg wasn't blinding my perceptions about the case. But it was too late to turn back; his house loomed just ahead.

Bond and I went to the front door and knocked; Slugg's daughter answered. She was slightly built, in her 30s, with dark hair and blue eyes. She had been washing dishes and stood in the doorway with a towel in her hands. I noticed she gripped the towel so tightly that her knuckles turned white.

I told her who we were and showed her the search warrant, explaining that she wasn't in any trouble but would have to let us come in to search the house.

We began with the garage and attic but found no evidence of furs or traps. My confidence began to fade when I realized the only other logical place to look was the basement. Queasily I opened the door.

As I eased down the wooden steps, my eyes darted from one end of the basement to the other. I knew it was my last chance to find anything. I was shocked to see what must have been the cleanest basement in the county. There wasn't anything except a large chest freezer at the opposite end. My hopes of finding trapping equipment scattered about and furs drying on stretchers were all but shattered. I didn't see so much as a cobweb.

The walk across the basement floor

I SLOWLY unlatched the freezer door, my eyes riveted to the inside as I raised the lid. I discovered four red foxes and two raccoons—all illegally taken. My case against the outlaw trapper was made.

seemed to extend for a mile as I moved uneasily toward the freezer. When I reached it, I stood there for a moment before I slowly unlatched the handle and raised the lid. My eyes were riveted to the inside chamber when I caught a glimpse of red fur, and I was relieved to discover four red foxes and two raccoons.

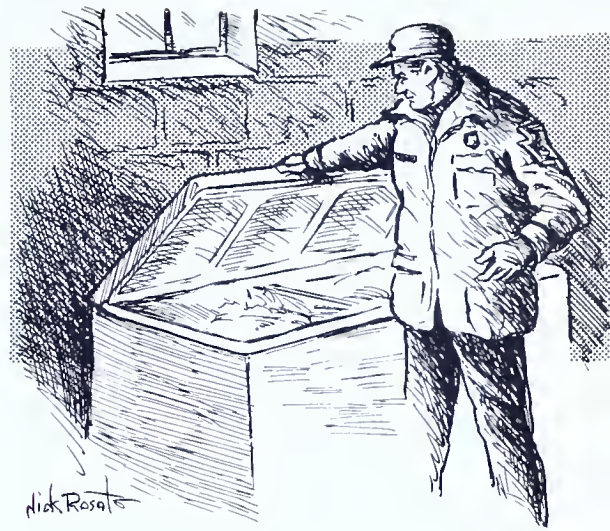
No sooner had we discovered the unlawfully taken wildlife, when Slugg arrived. We could hear him step into the kitchen and ask his daughter why the “wardens” were in his basement. Ed and I immediately went upstairs to meet him.

Slugg was a thickset man of medium height. His powerful arms hung low at his sides and his hair was mostly gray. He glared at both of us as we walked toward him.

Slugg and I sat at his kitchen table and talked about the trouble he was in. I wanted to locate any traps he had out and decided to make a deal with him. I told Slugg that he would be prosecuted for illegally trapping the animals in his freezer but promised him leniency on any untagged traps he might have set—on the condition that he show me where he was trapping. I wanted to learn more about the man and thought this would be a good way to do it. I was certain his traps would be untagged because the season was closed.

Slugg agreed to pull his traps and I followed him to his trapline. We drove to an abandoned farm and started out across some fields on foot. As we walked I asked him if he had a license, or permission to trap the land we were on.

Slugg stopped dead in his tracks and faced me. His jaw set and his broad shoulders began to sag. The still warm November sun splashed across his face, highlighting the white stubbly beginnings of a beard. “I don’t have a license; my traps are untagged; I don’t have per-



mission to trap here. I’m a complete outlaw,” he said in a booming voice.

“Oh,” I said, and followed him as we stomped out across a grass field to his first set. In all, we pulled 15 untagged traps, and at the end of the day I handed him citations for trapping without a license and taking wildlife in closed season—which amounted to almost \$900. Slugg pled guilty and paid his fine in cash the following week.

Eight Days Later

It was eight days later that I again arrested Zachariah Slugg for illegal trapping. This time I was with Deputy Derril Allspach, and we were patrolling an area that wasn’t too far from where Slugg had been trapping the previous week. I didn’t really expect to find him there, but something made me pull into the farm to look.

I was surprised to see Slugg’s car parked in plain view by the edge of a wooded area. Trapping season was now open, but I wanted to check him when he came out of the woods. I had yet to meet Slugg when he wasn’t breaking the law and thought perhaps this might be his day.

Deputy Allspach and I waited for about a half-hour when we spotted him. He materialized suddenly from the dark shadows of the wood’s edge. As he moved toward his car, Allspach and I approached.

When I saw the trapping license on

Slugg's back I thought everything would be okay—maybe he was taking a turn for the better—but out of the corner of my eye, I spotted a rifle on the seat of his car.

"May I see that rifle," I said to the trapper.

"What do you want to see it for? It's my rifle. What's the problem?"

"Is it loaded?" I asked, hoping for once he would do something right.

"Of course it is," he snapped with an air of confidence. "My guns are always loaded. What good is an empty gun?"

It was as if I had asked him if the tires on his car had air in them. To a man like Zach Slugg, my question seemed silly. But when I told him it was illegal to have a loaded rifle in his vehicle I watched his body sag.

How could anyone be as out of touch with the law as Slugg? He had just been arrested the previous week and here we were again. It seemed the poacher was born to lose, and in a small way I began to pity the man, thinking perhaps he had some kind of learning disorder.

Changed His Story

I asked if his traps were tagged, and he assured me they were. But when I told Slugg that we wanted to see for ourselves, he changed his story and admitted they weren't. Deputy Allspach accompanied him into the woods and soon returned with three untagged fox traps.

As I began writing citations for the loaded gun and untagged traps, Slugg launched into a tirade about how I was picking on him and then ripped his license from the back of his coat. He began tearing it into shreds while howling wildly that he would never set another trap. He was about to hurl the torn pieces to the ground when I quickly warned him not to unless he wanted to have a littering charge added to today's list of violations.

Slugg stood there staring at me with a slack jaw and blinking stupidly as I calmly finished writing the citations. Somehow I couldn't bring myself to believe that he was through trapping.

The following year, 1984, Deputy Staffieri hand delivered Slugg's notice that his hunting and trapping privileges had been revoked until 1987. It looked like Slugg's vow to give up trapping was appropriate after all. But the old poacher never paid much attention to game laws, and some little voice kept telling me that we would run into him again. Several months later we did.

It was the dead of winter. Staffieri had heard rumblings about Slugg operating a trapline in the area since autumn. Finally, the deputy received a tip from a sportsman that Slugg had traps set in Lower Moreland Township. Ron was determined to apprehend the outlaw, and he finally located his trapline. He watched the line for nearly 24 hours before his vigil paid off. Slugg was caught checking his traps and immediately arrested.

A subsequent investigation into Zachariah Slugg's illegal activities revealed he had been trapping for at least 50 days while on revocation. Many of the traps Staffieri found had been set in safety zones and were untagged. We know Slugg caught at least six raccoons, two foxes and three opossums that winter. He sold the furs under a fictitious name to unsuspecting fur buyers. Because he may have used several aliases, we were unable to be certain how many pelts he actually sold, or to whom.

Slugg pled guilty to all charges against him and paid a \$2,400 fine, an amount unheard of for a single trapper to pay at that time. Many of our fines were much lower then. If Slugg had been apprehended on similar violations today, he would have paid more than \$7,000.

Seven years have come and gone since that day and I haven't heard of him since. By law, Slugg will be allowed to trap in Pennsylvania next autumn. Sometimes I wonder if he's out there right now, merrily stringing steel through the hills and valleys of Willow Grove. I don't have to wonder about Deputy Staffieri, though. Ron is still there. Patrolling. Watching. Perhaps the outlaw and the deputy will meet again.



FIELD NOTES



Next Best Thing

JUNIATA COUNTY—Earlier this year Deputy Kevin Mountz and I gave a program to a Girl Scout camp at Turbett Grange. For a prop, we took along a fawn someone had removed from the wild. We allowed the girls to pet the fawn while we explained whitetail habits. Later, at the county fair, a girl came up to the agency booth to thank me for the program. She said she really enjoyed the fawn, but asked if next time we could bring a bear cub instead. That could be a difficult request to fill. She'll probably have to settle for one of our mounted specimens.—WCO Daniel I. Clark, Honey Grove.



Busy Highway

BRADFORD COUNTY—One day I saw a bear sitting in a field along Route 6, apparently watching cars go by. The longer the bear stayed, the more vehicles stopped to watch him. Finally, the bruin went into a cornfield, and most of the spectators left. Five minutes later the bear reappeared, and so did the crowd. I would imagine the bear is thinking along the same lines as the people who live near the highway: "There sure is a lot of traffic on this road."—WCO William A. Bower, Troy.

Remembering Landowners

TRAINING SCHOOL—Now that many hunting seasons have closed and the holidays are upon us, sportsmen should remember to thank the landowners who granted them hunting privileges. Send a Christmas card, small gift, or share with them some of the game you harvested. It will lead to better sportsman/landowner relations and help ensure more land will be open for everyone to enjoy.—Trainee Dave Mitchell.

Getting Tough

LUZERNE COUNTY—Another magistrate in my district is taking a hard line against game law violators. After I arrested a man for failing to pay a fine he had received for illegal possession of a deer, Magistrate Olzinski of Nanticoke sentenced the man to 90 days in the county prison. Faced with the possibility of losing his freedom for three months, the defendant suddenly remembered he *could* come up with the more than \$500 in fines and court costs.—WCO Edward J. Zindell, Wilkes-Barre.

Streambanks & Clean Water

TRAINING SCHOOL—While on a land management training assignment, I inspected several streambank fencing projects. It's good to see many farmers taking advantage of this Commission program. The fencing not only provides valuable habitat for wildlife, it also improves water quality in our streams. And I think this year's drought has made everyone aware of how critically important clean water is.—Trainee Daniel S. Yahner.



Beneficial Barn Resident

TRAINING SCHOOL—While on land management field assignment in the southeast in August, a classmate and I spent some time around a Lancaster County barn. We found a bunch of owl pellets on the floor and were surprised to find a barn owl sitting on a clutch of eggs in the barn's nesting box. Barn owls normally nest in spring, but will nest at any time of the year if there's an adequate food supply. It was educational to see firsthand how beneficial this species is: a single pellet contained the remains of a house mouse, a field vole and a short-tailed shrew.—Trainee Len Groshek.

National Champions

YORK COUNTY—After many years of hard work, five Red Lion High School students are national envirothon champions. Eric Jordon, Colby Mackley, Andrew Rittenhouse, Kyle Bolton and Laura Cooley—with alternate Andy Orwig—represented their school in the national competition. Red Lion is fortunate to have two teachers serve as coaches, Sandra Cooley and Charles Humberd. The team won the title at a camp in Maine, the trip made possible by sponsors York County Conservation District and York Chapter 67 of the Izaak Walton League. Mark Kimmel, YCCD manager, said, "These kids were heads and shoulders above everyone else, and they were up against some terrific competition."—WCO G.J. Martin, Spring Grove.

Visiting Relatives?

VENANGO COUNTY—A friend recently saw 27 wild turkeys. That wouldn't be noteworthy except the birds were right outside his front door, feeding on grain he put out for his chickens. The chickens, apparently intimidated by the size of their wild relatives, fled to let the turkeys feed.—WCO Leonard C. Hribar, Seneca.

New Bear Survey?

SCHUYLKILL COUNTY—While conducting a turkey survey on SGL 257, I noticed each time I ran my designated route that more cherry trees had been knocked over across the road. A close look revealed that bears were responsible; they'd pulled down the trees to eat the cherries growing on the upper limbs. By my final visit, so many trees were felled the road was almost blocked. Perhaps we should conduct a bear cherry tree route survey.—WCO John Denchak, Gordon.



Save That Fat

BEDFORD COUNTY—When you butcher your deer, save the fat and place it in a mesh bag similar to the ones used to store onions. Hang the bag outside where you can watch birds feed on it. I've found birds prefer deer tallow over beef tallow. More than 80 species of birds make use of this high-energy food source.—WCO Dave Koppenhaver, Everett.

Staring 'Em Down

INDIANA COUNTY—WCO Arthur Hamley and I were on duty when the dispatcher, my wife, called to report a deer in a swimming pool. I picked up the gear we'd need to take care of the problem, and after a quick call to confirm directions we were on our way. Upon arrival, just as we were about to check the pool the homeowner came out to describe how the animal couldn't get out of the pool no matter how hard it tried. We looked at the deer; it looked at us and jumped out of the pool and dashed into some nearby woods. "Problem solved," WCO Hamley said. "Are we good or what?" I replied. The woman began to apologize for calling us, but Hamley told her it was the "game warden stare" that sent the deer on its way. —WCO M.A. Schake, Homer City.

A Noble Profession

TRAINING SCHOOL—In November 1930, Game Commission field personnel were outfitted with their first uniforms. The occasion was highlighted by an address from Commissioner Adolf Muller. "You have chosen a noble profession, treat it well," he said. "In your dealings with the sportsmen, the public in general, educate rather than prosecute and never persecute." I'm proud to report that those same values and principles are being taught to new officers more than 60 years later. —Trainee Frank J. Dooley.

Successful Camp

WAYNE COUNTY—Last summer's Wayne County Sportsmen's Youth Conservation Camp was a rousing success. Special thanks goes to the Wayne County Sportsmen's Association and sponsoring affiliates whose contributions aided the camp's success. Lacawac Sanctuary, the host facility, and curator Sally Jones deserve special mention for their hospitality during the week-long event. And, finally, thanks to the students and parents for their interest. —WCO John C. Shutkufski, Damascus.

Membership Booster

LAWRENCE COUNTY—The Castlewood Rod & Gun Club sponsors a youth day where kids who've passed their hunter-ed course can gain some hands-on experience with firearms and archery equipment—free of charge. It's a great program, I feel, because the youngsters have fun and get some valuable training, and the club develops a source of potential members. Activities like this could help any sportsmen's club boost its rosters. —WCO Gene Beaumont, New Castle.



Showing Him the Ropes

BRADFORD COUNTY—I was working with fellow officer Bill Bower when we made a vehicle stop. The driver paid no attention to the flashing red light, so Bill decided a short siren blast was in order. Imagine his surprise when he couldn't remember how to turn off the siren. He nearly kicked a hole in the floorboards as he pounded at the foot switch—which only turned the siren to an air horn. For some reason he began landing open-handed blows on the radio, and at that point the siren changed modes again—completely confusing him. Although doubled over with laughter, I managed to silence the device for him. It wouldn't have been so bad, except the incident occurred in downtown Towanda at noon. I'm sure this is one story you won't read in Bill's book. —WCO Richard P. Larnerd, Warren Center.

Making the Best of It

SUSQUEHANNA COUNTY—While working the Harford Fair, Ray and Linda Erickson stopped by. Ray was the victim of a turkey hunting accident I investigated five years ago. It was good to see they were doing fine, but it was obvious Ray still carries some pain from the incident. Although he suffered greatly, Ray turned the accident into something positive by telling his story to various safety training courses in New Jersey. Although things worked out okay in the end, none of this would've been necessary had the offender positively identified his target.—WCO Charles J. Arcovitch, Kingsley.

Or Your Hunting Clothes

On the opening day of spring gobbler season, well before daylight, I heard three rapid shots from at least a mile away. I suspect a person had flushed some birds and shot at the sounds. On the other hand, Harold Van Druff, Kirby, told me of a hunter on his property who, at the break of dawn, found himself surrounded by roosting turkeys, including a gobbler well within shotgun range. The hunter didn't shoot, though, because he hadn't called the bird in. Later in the day, though, he did bag a jake. I certainly respect his sportsmanship, and as for the slob who did the early shooting, may the fleas of a thousand camels invade your tent.—LMO R.B. Belding, Waynesburg.



Credit Where It's Due

WESTMORELAND COUNTY—Wildlife conservation officers spend much of their time dealing with game law violators, so it's really nice to be able to give credit to some of the true sportsmen we meet. Recently, Dave Palmer, Anthony Pupeza, Peter Szep and Nick Serenyl offered to clean up the public shooting range on SGL 42, from which they took a pickup truck load of garbage. I'd like to offer a sincere "thank you" from the Game Commission and the people who use the range.—WCO R.D. Hixson, Ligonier.

Like Michael Jordan

I attended the NRA's Youth Hunter Education Challenge in Raton, NM, and I met many fine young sportsmen and women, volunteers and wildlife professionals from around the country. I also learned some interesting things about flora and fauna in the Southwest. Prickly pear cactus is edible but doesn't have much flavor. Auodad sheep and oryx are two exotic big game species that prosper in New Mexico. When stepped on just right, a 3-foot-long prairie rattlesnake can make a 52-year-old man jump five feet into the air. Isn't that right, Bill Bower?—LMO Keith P. Sanford, Bloomsburg.

Just a Trim, Please

CLARION COUNTY—A man stopped at my home during spring turkey season to report some baby fox squirrels he had found. He said it looked like they'd been there awhile, and when I investigated I found that the five young had gotten their tails knotted together. After about 20 minutes of untangling tails and cutting hair, I freed the babies. None were worse for wear, except for the naked tails they now had.—WCO David Beinhaul, Knox.

What A Deal

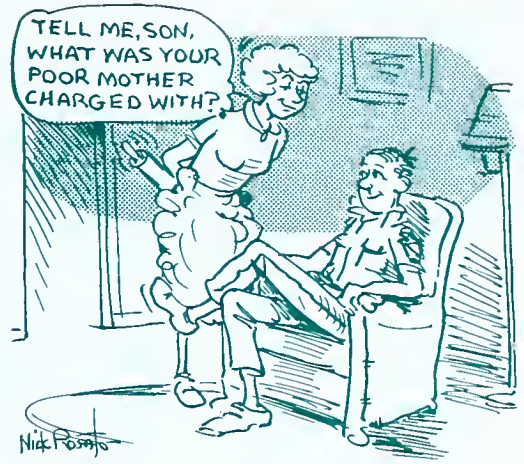
SOMERSET COUNTY—Awhile back I was talking with the Rev. W.E. Rayner of Fort Worth, TX. The reverend told me he vacations here each year during deer season. He said it's less expensive for him to fly to Pennsylvania, buy a nonresident license, get a place to stay, hunt here and then fly back than it is to hunt as a resident in Texas. He said almost all hunting land in Texas is leased, and lease costs average \$750. Rev. Rayner said he preaches here Sunday and thoroughly enjoys his stay, whether he gets a deer or not.—WCO Daniel W. Jenkins, Somerset.

Too Many Mountains

WYOMING COUNTY—I once heard a story about a man who moved here from the southwestern U.S. When asked how he liked the country, he said he couldn't get a good view because there were too many mountains in the way. I suppose that's what is meant by the adage "Beauty is in the eye of the beholder." After all, what's really important is not whether you prefer mountains or deserts, but that you appreciate nature.—WCO William Wasserman, Tunkhannock.

Holiday Gift Ideas

PHILADELPHIA COUNTY—With Christmas fast approaching, you may be stuck for last-minute gift ideas. A subscription to *GAME NEWS* is a great way to show your love or friendship, and the Commission offers a number of other items for sale—publications, maps, patches, *SPORT* items, art prints, and stamps—that make perfect gifts or stocking stuffers. Field guides, binoculars, videos, gun cases and cleaning kits are great for hunters. A bird feeder and seed makes an unusual gift for a child, one sure to spark interest in wildlife. And don't forget the landowner on whose property you hunted last year—a little present will help keep that land open.—WCO Richard J. Shire, Philadelphia.



Freeze, Mom

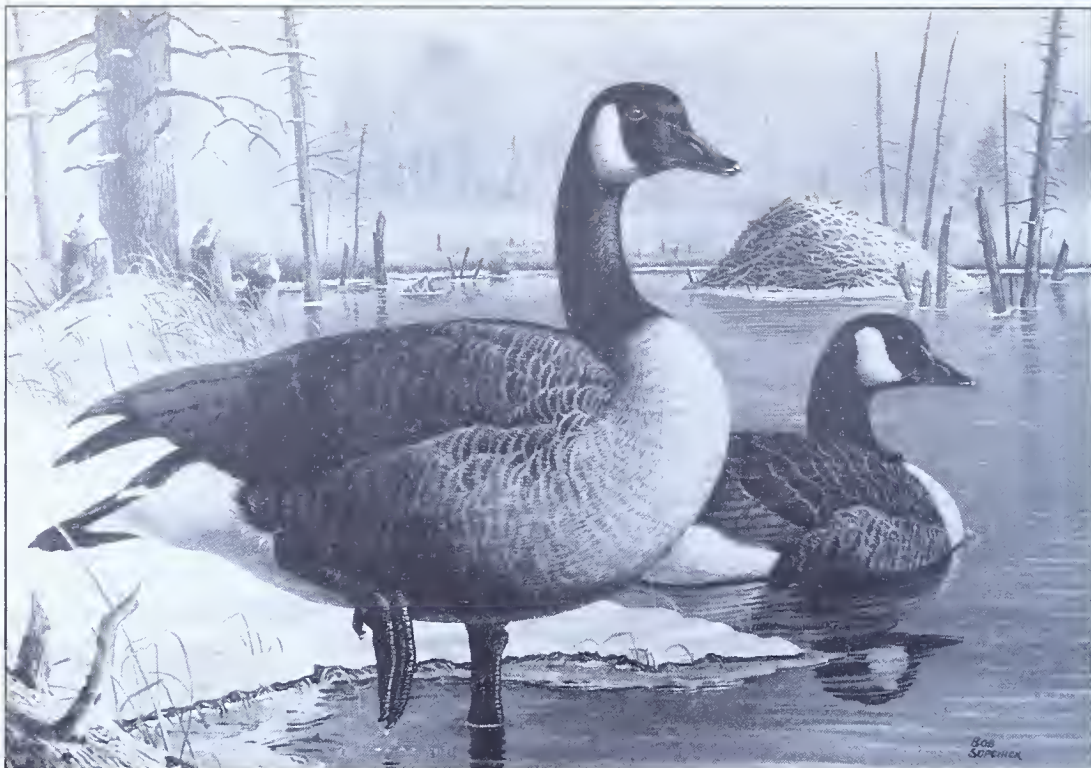
TRAINING SCHOOL—One of the methods we use to learn the Game and Wildlife Code is to write citations on hypothetical defendants and charge them accordingly. As I look back on these practice citations, I realize I've arrested many friends and family members—including my mother. I hope they don't take it personally.—Trainee Terry D. Wills.

Clueless

TRAINING SCHOOL—While driving home from a field assignment, I noticed the car in front of me had an "Earth First!" bumper sticker on it. As the car pulled off the ramp, I saw the driver throw a can out the window. Although conservation is becoming more fashionable, some people still have no idea what it's all about.—Trainee R.R. Palmer.

Vitally Important

CHESTER COUNTY—While reading a 1923 issue of *Hunter, Trader, Trapper* magazine, I came across an article on the raw fur market. I was amazed that today's prices are almost exactly what they were nearly 70 years ago. That's unfortunate. Fur makes lovely garments, and trapping is not simply an important part of our heritage, but also a vital means of furbearer management.—WCO William C. Ragosta, Nottingham.



BOB SOPCHICK'S "Beaver Pond Canadas" has been selected as the Game Commission's 1992 waterfowl stamp and print design. The longtime GAME NEWS artist's rendition of two Canada geese on a Tioga County beaver pond took top place in a contest held at the Pymatuning Waterfowl Expo last September.

Sopchick Wins Stamp Contest

WETLAND HABITAT in the form of a beaver pond provides the setting for a pair of Canada geese featured on Pennsylvania's 1992 voluntary waterfowl stamp and fine art print. The oil painting is the work of artist Robert D. Sopchick of York and was selected as the state's 10th anniversary stamp and print

design from among 40 entries submitted for judging during the Pymatuning Waterfowl Expo held last September in Linesville.

Sopchick, 39, chose a winter scene on a Tioga County beaver pond as the setting for his winning entry. "I wanted to illustrate something more than just a pair of waterfowl," he explained. "I wanted to show the kind of habitat that is critical to all waterfowl." The painting is appropriately titled, "Beaver Pond Canadas."

A native of Johnstown, Sopchick is chairman of the art department at the Pennsylvania School of Art and Design in Lancaster. "I grew up roaming the woods," said Sopchick. "I've been drawing animals and other wild things since I was about five years old."

Stamps will be available at Game Commission offices, Middle Creek and



Pymatuning Wildlife Management Area visitors centers, and at participating hunting license issuing agents. The new duck stamp fine art prints will be avail-

able from Sportsman Specialties Company of Greensburg, publisher of the prints, and from wildlife art galleries statewide.

Grabowicz Succeeds Sitlinger

JACOB I. SITLINGER, director of the Bureau of Land Management since 1980, retired in late September, bringing to an end a 33-year career as a professional wildlife manager.

Gregory J. Grabowicz, chief of the Environmental Impact Assessment and Minerals Division in the Bureau of Land Management since 1975, has been promoted to the bureau director position.

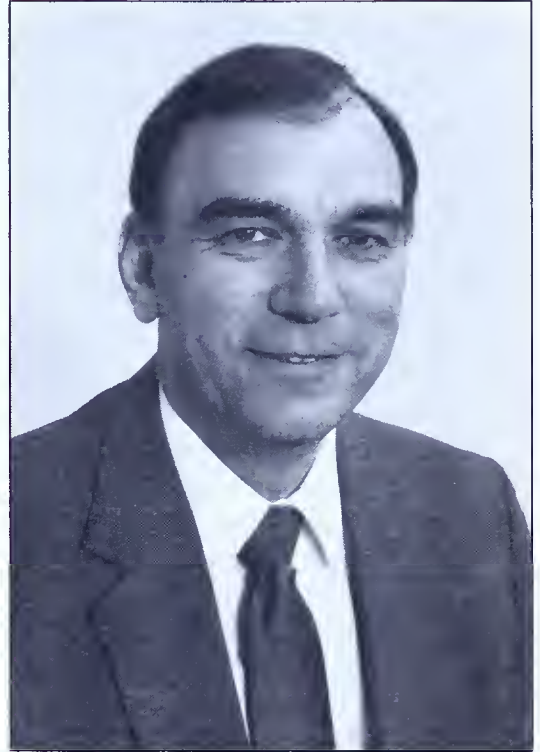
Sitlinger, a 1942 graduate of Gratz High School, served with the U.S. Navy in the Pacific during World War II. He became a deputy game protector in 1956 and was named acting game protector for upper Dauphin County in 1958.

Jake worked in the Game Commission's Food & Cover Corps during part of 1959 before reporting to the Ross Lefler School of Conservation at Brockway. Upon graduation in April of 1960, he was assigned as a game protector in Perry County.

In 1968, Sitlinger moved to the Southeast Region as Pittman-Robertson leader. He was named chief of the Real Estate Division of the Bureau of Land Management in 1971 and became bureau director in January of 1980.

A native of Shamokin, Grabowicz graduated from Coal Township High School in 1960 and earned a BS degree in forest management from Penn State University in 1964.

A career Game Commission employee, Grabowicz joined the agency as a forester in 1965 and began developing forest management plans for game lands



Gregory J. Grabowicz

throughout the state. Greg was promoted to Northcentral regional forester in 1970 and joined the Bureau of Land Management headquarters staff in 1973.

The duties and responsibilities of the Environment Impact Assessment and Minerals Division were vastly expanded during his tenure as division chief. In addition to directing mineral management on game lands, the division also participates in a multi-agency task force which oversees wetlands and environment protection throughout the state.

How Not To

THERE ARE PLENTY of author/experts who are anxious to teach you “How to Get Your Deer Out of the Woods,” but does anyone ever write “How Not to Get Your Deer Out”? I’m willing to take that unprecedented step and let you in on a few of the gaffes, goofs, and downright foolish things that can happen when a successful hunter is faced with getting his deer from where it fell back to civilization. Not that I personally have made any deer dragging mistakes, but I have this all on reliable authority. Ah-hem.

The ideal way to get a deer out of the woods is to not do it yourself. Get a large, strong person to do it for you for free. All other methods are inferior to this, some vastly, others slightly.

Just Start Pulling

A few methods will work well if prepared for properly and executed with precision. But who has the time, equipment, or presence of mind for complicated dragging arrangements when the deer is down, it’s getting dark, and the car is far away. Most of us just grab something and start pulling.

One thing you don’t want to grab is a hind foot. I’ve seen hunters struggling to pull a deer out wrong end first. Not only does it look silly, but the fur is pointing the wrong way and each hair is digging in to hold you back with every step. A foot does seem a convenient handle, especially when the deer is a doe—which doesn’t have any handles

on its head, except the ears, and they won’t work at all. At least pick a front leg.

Tying a rope to the deer’s neck and tugging is one of the “right” ways to drag, but even this can be done wrong. Some hunters pull ropes so long it looks like the deer is on a leash, and not willing to follow. If the dragger’s not in close control, when he works his way across a sidehill the deer will slide down or swing into the middle of a blow down. Plus, the length of rope between the deer and the hunter has a way of being devious on its own, catching in every bush and limb crotch.

Hauling a deer with one hand is counterproductive when you have two of them. There are lots of short pieces of wood in the forest to which you can tie the rope and make a handle. Hauling with just the rope wrapped around your palm is never a good idea, unless you don’t like the natural shape of your hand and want to try a new one.

Carrying a deer on a pole is the classic illustration found in many older hunting books. From this you’d think it’s an excellent way to get a deer out. Don’t believe it. First you need to find another person who’s willing to spend the rest of the day getting your deer out instead of hunting. It also means you will “owe” this person something, like hanging around to go through the deer carrying business all over again once he shoots his.

Most instructions on “how to pole carry” suggest the hunter cut a stout sapling to size and tie the deer’s body to it. In Pennsylvania, you can’t go around cutting live saplings on public property or someone else’s private land. The dead saplings lying around always seem to be too heavy to shoulder, too thin to support the deer, or too long or too short. And who carries a saw big enough to do the adjusting?

If, by chance, the right carrying pole is found, how do you tie the deer to it? The obvious way would be to tie the

Another View...

by Linda Steiner

deer's feet together and hang it, body down. Wrong. What happens is that when you walk with the pole on your shoulder, each step makes the deer's body swing. Given enough sway, it will throw you to the ground. This doesn't have to happen more than once before you start looking for a new method. One suggestion is to tie the deer tight to the pole. But that takes a lot of rope, and who carries that much?

Even if you do get the deer tied securely, the weight of the pole and carcass will cut into your shoulder, and shifting from shoulder to shoulder just means both get sore. Using two poles and lashing the deer's body between in a sort of litter is supposed to distribute the weight, but it often just adds more and really doesn't offer much help.

You can always dispense with the poles, and carry the deer out like a furry sack slung across your shoulders, two feet in either hand for balance. But then you need a big piece of blaze orange cloth to drape over it so the carcass doesn't look like a tall, live deer and invite accidents. I never liked this idea because the field-dressing incision would be carried closest to my head. I also don't relish the possibility of dog ticks, deer ticks, deer keds and such crawling off the fur and onto my scalp.

I have seen a travois used successfully to get a deer out of the woods, once. We were lucky to have just the right size poles and arrangement of supporting sticks, and the deer pulled easily down the game land road. When we tried the method a second time, the limbs we picked to make the supporting "V" broke, the tied cross pieces fell apart, and the deer flopped off. Of course, there's a difference between having three people help find and tie up the poles, and doing it yourself with half an hour left before dark.

Every year someone in our hunting

group says, "Why don't we build a cart and wheel the deer out?" This sort of suggestion usually appears in midsummer, is followed by the frenzied collection of miscellaneous bicycle wheels, metal rods and boards, and ends by leaving them all in the garage and hand-dragging our deer out as we always have.

Commercial deer carts are available, but at a pretty price. They might be fine where the trail is smooth, clear and wide, but they'd be the wrong thing for getting a deer out of the tangles I usually shoot them in. If you take a cart into the woods with you, you're pretty much tied to it. If you stow it, you have to worry all day that it hasn't walked away. If you leave the cart in the car, you have to hike back for it, wheel it in, load the deer, and wheel it back out again. That's a lot of walking, especially since the reason you wanted the cart was because you were hunting so far back in.

Two-wheeled carts must be better than one-wheeled, if our gang's recent

THE SAYING, "Once the deer's down, the work begins," contains a certain element of truth. Adequate preparation, however, is the key to eliminating much of the drudgery associated with removing a big game animal from the woods.



experience with a wheelbarrow as a deer carrier is any indication. Not only was the barrow's one wheel tippy, even when we reached the flat trail, but getting it over the miles of rough cobble and across the uneven ties of the railroad bed was nearly impossible. It might have worked with one deer, but we had four. It was long after dark when we got back, half dead, trying to remember whose big idea this was anyway.

Like trying to build the better mouse trap, hunters are always looking for an easy way of getting their deer out. During the ill-fated wheelbarrow escapade, one of our worn out group mused that there must be a way to float a deer with a helium bag. All you'd have to do is hold the string and walk it out. But if it got windy, it'd be "up, up and away." Guess there's no way out of it and no way around the fact that "once the deer's down, the work begins."

Paul C. Weikel

August 24, 1944—October 22, 1991

Conservationists throughout the state suffered a tragic loss last October with the sudden passing of Paul Weikel. As Deputy Executive Director of the Game Commission, Weikel was at the zenith of a career dedicated to enhancing Pennsylvania's wildlife and serving the state's sportsmen.

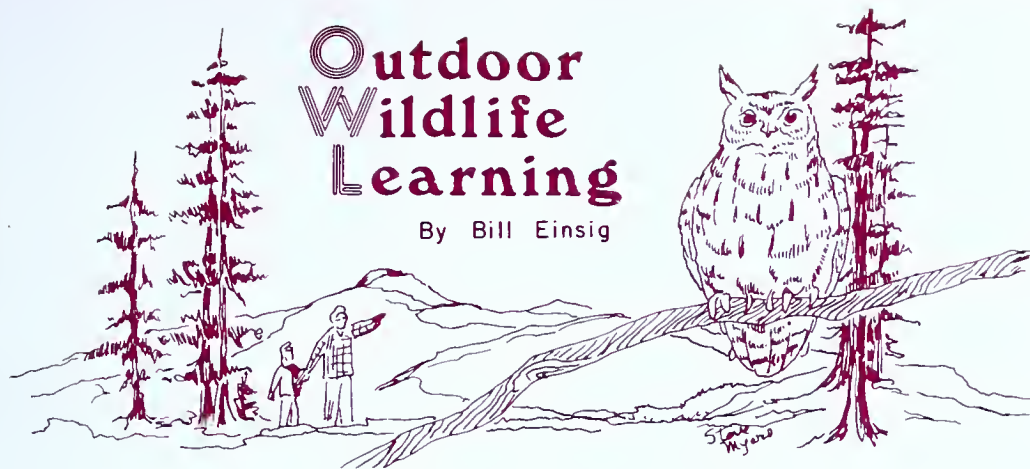
A native of Shamokin, Paul was graduated from Penn State University with a BS degree in forest management and then joined the Game Commission in April 1967. Just a few months later he entered the military and went to Vietnam where he ultimately earned the rank of 1st Lt. in the U.S. Army.

After his discharge in 1970, Paul returned to the Game Commission as a forester in the Southeast Region and began advancing through the agency's ranks.

In January 1981, Paul moved to the Harrisburg headquarters and soon became Chief of the Federal/State Coordination Division within the agency's Bureau of Land Management. He was then named Deputy Executive Director on January 1, 1986.

As all those who attended his memorial service will certainly attest, even more important than Paul's lifelong commitment to Pennsylvania's natural resources was his heartfelt devotion to his family, friends and fellow workers.





Leave Them Be

Dear Mr. Owl,

Every summer I find baby sparrows whose mothers were killed. I don't want to leave them. Do you have any tips on how to raise baby sparrows? Frustrated, Warrington

Dear Frustrated,

Finding an orphaned animal can indeed be a frustrating experience. A part of our human nature makes us want to protect and nurture the young birds until they can take care of themselves. Actually, that's not normally the best choice.

There are a number of aspects to this apparently simple question, but one is of paramount importance. In Pennsylvania, it is against the law to keep and raise a wild animal. Each year, citizens, who believe they are doing the right thing, bring home deer fawns and other wildlife they assumed to have been abandoned. By doing this, these people are subject to significant fines for their good-hearted, but misdirected, actions. It may seem to be an unfair law, but it is a good one for wildlife.

In most cases, the young animals, perhaps like your sparrows, are not truly abandoned. Fledglings frequently land on the ground after their first training flights simply because the nearest shrub or tree is too far for their weak wings or, perhaps, because their steering isn't yet what it should be. These young birds may stay on the ground for some hours or a day or two until they develop enough strength for sustained flights.

During this time, the young birds may

appear to be injured and abandoned. They look so unstable as they try to master the skill of flying but, remember, we were once clumsy as we learned to walk. Usually, the adults are nearby, keeping a protective vigil against potential enemies and feeding the young bird on the ground.

The next time you find a young bird you believe is abandoned, listen to the sounds of other birds around you. Adults typically perch a safe distance away and send out a barrage of warning cries. Robins get very noisy with short, loud alarm calls, and bluejays might even dive at your head. If you leave the young alone, the adults will continue their watch and feed the fledgling until it can take care of itself.

The best advice is to leave the young birds where they are and allow the parent birds to do the job they alone best understand.

Dear Mr. Owl,

Most of my spare time is spent hunting groundhogs and I've noticed their acute sense of sight. But does their sense of smell equal that of deer? Also, how many days in summer can they survive without eating? T.P., Mifflintown

Dear T.P.,

Groundhogs do have very keen eyesight as you've learned from first-hand experience. They also have very good hearing even though their ears appear to be quite small. Their sense of smell, however, probably doesn't compare to that of a whitetail.

Deer have four sets of external scent

Use 800 Numbers

Within Pennsylvania, use the agency's toll free (800) numbers to contact a wildlife conservation officer. In the Northwest Region call 1-800-533-6764; Southwest Region, 1-800-243-8519; North-central, 1-800-422-7551; South-central, 1-800-422-7554; Northeast, 1-800-228-0789; and Southeast, 1-800-228-0791. Phones will be manned around the clock during the major hunting seasons, about 15 hours a day at other times.

glands that communicate information to other deer and even identify one deer from another. Deer are also sensitive to other environmental smells and are quick to react to the smell of danger from natural and human enemies.

The groundhog's sense of smell is less developed. It plays a role in detecting scents produced by the animal's anal scent glands and might also be used in the search for food.

The second part of your question is a bit more difficult to answer because the survival time of a starving animal depends on many factors such as weight at the onset of starvation, age, general health and so on. Most starving animals ultimately die of some disease that is aided in its development by the animal's weakened condition.

It is probably safe to guess that a typical groundhog could survive several weeks without feeding. They frequently spend days or weeks wandering for mates immediately after hibernation in early spring. They eat sparingly at this time because most vegetation is not actively growing.

Another clue to their ability to prolong starvation comes from skulls of groundhogs that have died a gruesome death due to malocclusion. Groundhog incisors continue to grow throughout life. The upper pair meet the lower pair and actually rub against each other to maintain a sharp edge. When the teeth become misaligned they grow very long. The upper incisors grow downward in a long arc eventually penetrating the animal's neck. The lower incisors grow in an upward arc and can penetrate the eye sockets. Obvi-

ously, feeding would be nearly impossible with teeth in such condition and, yet, the groundhogs frequently stave off the effects of starvation long enough to allow the incisors to grow to such gruesome extremes.

Dear Mr. Owl,

Where did the owls get the name of "wise old bird"? J.A.F., Lima

Dear J.A.F.,

It's interesting to consider that owls have been symbols of evil and messengers of death in many cultures for hundreds of years and, yet, also carry a more modern reputation for being "wise" birds. The apparent mystery surrounding the owl's daily routine—silent night flights, eyes that see when humans cannot, and disappearance during daylight hours—could easily lead superstitious cultures to link owls with the supernatural.

References to owls as being "wise" probably stem from their physical appearance and from their behavior. Owls are, of course, predators and have few enemies except, perhaps, other owls. As a result, their eyes are more forward-looking than any other bird. Facial feathers also form a round "face" on most owls and make their heads appear larger than normal for a bird of equal size. They also appear to sit in an upright position as though they were ultimate master of all they see. All of these characteristics combine to give the owls a more human appearance.

But to me, it is the owl's eyes and demeanor in the wild that seems to set the bird apart as a superior animal. I've stumbled upon barred owls on a number of occasions and was always impressed with their eye contact. Their eyes seem to look right into me almost with a bit of disdain as though they knew all about me but that I didn't understand much about them. When I moved too close, they slowly flew away but almost casually without showing the slightest sign of fear or excitement. It seemed that I was only an insignificant oddity, a nuisance, a temporary interruption to their more important life functions of feeding, resting and rearing a family.

There was an old owl liv'd in an oak
The more he heard, the less he spoke;
The less he spoke, the more he heard
O, if men were all like that wise bird!

PUNCH, 1875

ACOLD, STARK landscape greets the arising sun each day. Gone is the lush, green growth of summer. Lost, too, is the blaze of autumn's glory. Only a quiet stillness accompanies the drab hillsides.

Hunting seasons continue in full swing. A brief respite is offered during the holidays, but the late archery and muzzle-loading seasons, coupled with extended small game opportunities, follow on the heels of Christmas.

Needless to say, a WCO's law enforcement activities remain high throughout the month and well into the next. Join me as we conclude our journey in this urban/suburban area.

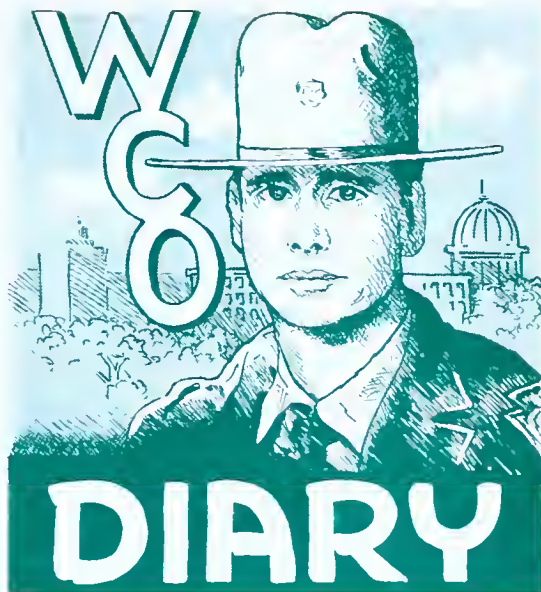
DECEMBER 1—This, the first Saturday of buck season, marks an upturn in hunting pressure as many sportsmen free from their jobs can enjoy another day afield. I'm reeling from the numerous incidents and complaints that accompany deer hunting activity.

As the sun peeks above the treetops, I'm on foot in Londonderry Township, searching for a fellow seen on opening day without a license. Another chap was observed in the same area removing his orange garb and donning camouflage as he entered a thicket. I'm curious to learn the identities of these individuals.

As I begin checking hunters along the way and follow some added leads, I soon locate the man without a license. He says he's not really hunting, just sort of helping his nephew locate some deer. His story begins to fall apart when he can't explain why he's toting a loaded 30-06.

Later, I team up with veteran Deputy John Flory as we check on a tree stand heavily baited with salt and corn. John's been keeping tabs on the spot since learning about it earlier in the week. To date, we haven't found anyone in or near the spot, but we'll continue our periodic watch of the area.

We are no sooner back in our patrol vehicle when a radio call informs us of a violation just committed at the other end of the township. Within minutes we arrive to find a group of concerned sportsmen huddled around a downed doe. The caller explains how two deer crossed a nearby field. The witness claims the adjoining landowner's hunting party opened fire on the antlerless deer and that both deer had been hit. We soon find the second doe, also dead, near the back of a nearby housing development.



By Keith A. Snyder
Wildlife Conservation Officer
Dauphin County

As John gathers the carcasses and associated bits of evidence, I record the caller's information and statements. I've met the landowner in question before and am expecting a very interesting story.

As we slowly roll to a stop in the adjoining gent's farm lane, we're greeted by the owner and his son. They've been expecting us, and they're aware their activities were witnessed. After chatting with the pair, a quick search of the nearby shed reveals two more doe shot earlier in the week and a pair of untagged bucks.

After a lengthy interview and investigation, John and I sort out the mess. The landowner subsequently settles the infractions on field receipts.

DECEMBER 5—Several complaints have alerted me to some spotlighting activity occurring just after dark near the Hershey cemetery. Several years ago spotlighting was prohibited during the regular firearms deer season, and this area has been a traditional trouble spot for poaching activity.

Deputy Larry McCarter joins me for what I hope will be a "sure thing" as we hide close by, waiting for our spotters. My luck seems to run in spurts, either all good or all bad. This time it's bad as our vigil proves fruitless.

Later, after disposing of a couple roadkills and taking care of other details,



we stop at a Penbrook residence to interview a guy about his involvement in a safety zone complaint originating in Perry County. WCO Leroy Everett had called to request our assistance in finding a group of waterfowl hunters that fired at a flock of geese on the Juniata River. The birds were well within 150 yards of an occupied home when a pair of boats floated into the area and shot. The homeowner was able to note one of the boat registrations before the shooters left.

A brief interrogation soon reveals who the hunters were and brings forth some details of the incident. With our help, Leroy is able to complete the investigation and settle the matter.

The long night is concluded with another patrol vigil in and about SGL 211.

DECEMBER 7—The deputies have been plagued by a crafty group of hunters in the Fort Indiantown Gap area. The men have been seen removing their orange clothing and entering a closed and highly restricted area of the military post. The group is suspected to include several previous violators and one guy currently on license revocation. Additionally, the deputies believe the group may not be tagging the deer they kill.

A recent lead has clued the deputies as to when, where and how the hunters are entering the area. Consequently, they were able to nab a pair of violators but have been unable to locate the remainder of the hunting party. Another lead suggests the group has been gaining access by driving an unlicensed vehicle through closed areas of SGL 211 during pre-dawn hours.

Larry McCarter and I take to the air today to unravel this mystery. The Pennsylvania State Police have graciously of-

fered the use of their helicopter. Trooper Ruppert flies us over the broad expanse of wilderness in search of the access road and the supposedly hidden four-wheel-drive vehicle.

While airborne, we hover over East Hanover Township and soon locate a large salt block strategically placed in a small wooded draw. Several tree stands are seen surrounding the bait. We note the block's location and plan on investigating the area further on foot.

The spirit of cooperation that exists between various state agencies has been the hallmark of success for many Game Commission programs. Without the assistance from the State Police, the Fish Commission, DER and others, our effectiveness in managing the commonwealth's wildlife resources would be greatly diminished.

DECEMBER 8—Being at the right place at the right time has always been an elusive goal of hunters and fishermen. Conservation officers also experience the frustration of being one step behind.

Today, while operating a road check in a remote area of East Hanover Township, I had the good fortune to be at the right place. Standing by the roadside, I gestured for an oncoming pickup to stop. As it slowed before me, a beverage container was tossed into the woods by an unseen occupant in the back. A second later the truck glided to a stop and I was face to face with a surprised hunter sitting in the open bed. Obviously he was unaware of my presence when he threw the bottle, and now his disbelief is evident. My remark about his sense of timing drew chuckles from his hunting companions. Now, if I could only be at the right place when a poacher's gun cracks. . . .

DECEMBER 9—A scheduled day off prior to doe season finds me preparing for a family outing. One stop is to select and cut our Christmas tree.

But the ringing of the office phone draws my attention as I load the last of the gear and kids.

A deer has crashed through a window at the Central Dauphin East Junior High School and is now creating havoc inside the computer room. As I zip down the expressway, I envision major damage: flying disk drives, mutilated keyboards, and smashed and sparking display modules in the deer's wake.

Dashing into the building, I hear some queer grunts and howls mixed with heavy breathing. I think it doesn't sound quite like a deer as I round the corridor and enter the classroom. Sure enough, the sound effects weren't from the deer but from my deputies.

Dale Hull and Bob Landon, together with Bob's son Bill, had the deer down, and in the best rodeo fashion were attempting to tie the animal's legs together. Smeared across the floor were sweat and blood—little of which came from the deer.

With the deputies' help, I tranquilized the doe, and we removed her without further incident. As they gather their lassoes and limp out of the front door, I kid the guys that their frequent trips out West are really beginning to pay dividends.

DECEMBER 10—The opening of doe season brings another influx of hunters to the woods. With the increase comes additional calls and complaints. Between checking baited areas, we process violations ranging from attempting to kill over the lawful limit, to untagged deer and hunting from a vehicle. Miles and miles of foot patrol throughout the district contribute to a restful night's sleep for me and my deputies.

DECEMBER 12—The sun is beginning to set on the final day of doe season. Hunting pressure has dropped substantially, and I find myself taking a walk through a large rural area in Derry Township. Slowly I can feel my "spring" begin to unwind from the hectic days and weeks past.

I wander almost aimlessly through woodlots and fields without seeing a single hunter or hearing a shot. As I crest a sharp incline and enter a ridgetop field, I can hear a vehicle bouncing along an access lane. An unexplained sixth sense tells me to remove my orange cap and vest and hide in the woodline. The clanging sound of the truck is almost upon me as I jog into the trees. I no sooner enter the woodlot when I literally stumble over a freshly killed and dressed doe hidden in the leaves. I immediately notice the deer isn't tagged.

Now, the pickup is a mere dozen or so yards away. I have to hide quickly, but the largest tree is only three inches in diameter. A tree; that's it. I decide to make like a tree, freezing in my tracks and doing my best wood and bark imitation.

DECEMBER, 1991



Question

May I use rifled slugs in a 410 shotgun for deer hunting in Pennsylvania?

Answer

Yes. It's permissible to use a 410 with rifled slugs for deer hunting in Pennsylvania, except in the special regulations areas.

The green flat-bed truck grinds to a halt; the two passengers bail out, and they dash toward the hidden deer. In their haste to load the deer, no one notices me—my great tree disguise has fooled them. The pair grab the young doe and quickly carry it back to the idling truck.

From a mere 10 feet away, I clear my throat and say, "Can I give ya a hand with that?"

Looks of shock and amazement cross their faces. I separate the group and in short order have full confessions.

Earlier in the day the three were driving the back roads looking for a deer. They spotted the yearling doe standing in a pine thicket, and the driver shot her from inside the truck. To compound the issue, no one had a license.

Good fortune was again on my side as I literally stumbled into yet another case. Later, the deputies accuse me of being a mystic. They want to rub my head for good luck and then rush out to buy a bunch of lottery tickets. We all get a good laugh from the joke, and it begins to relieve the stress of our hectic pace.

DECEMBER 13—I'm called to investigate a deer that was shot this afternoon, a day after the close of doe season. The caller says the deer was killed by a neighbor and then given to him. A brief investigation reveals the details, and the shooter is promptly cited.

DECEMBER 18—A concerned home-

owner in West Hanover Township called about some bullet holes he found last evening in his home. He presumes the incident occurred earlier in the week while he was at work.

The bullet entered near the corner of the attached garage, passed through the wall, and exited the garage door. As I string and connect a series of wooden dowels through the holes, my hunch is confirmed. The bullet's path is traced to the nearby roadway and a parking spot on the berm.

After interviewing the neighbors, I learn that three shots were heard early on the last morning of doe season. The blasts came from the nearby roadway, and I'm able to piece the puzzle together. Deer are frequently seen crossing the road along a fence line between the caller's home and the parking spot on the berm. I can envision a "slob" seeing the deer crossing the field, and then deciding to head them off. The results were permanently left on the caller's garage wall. Fortunately, no one was injured—except for the hunters' image. I can't over-emphasize how incidents such as this leave a profoundly negative opinion about hunting in the minds of the general public.

DECEMBER 20—Deputies Dale Hull and Frank Kolaric were called to respond to a poaching incident in Lower Paxton Township this evening. The callers, a husband and wife, were busy preparing their evening meal when they noticed a group of deer standing in their backyard. Soon a neighbor appeared with a shotgun; he stalked and killed one of the does. The callers watched in total disbelief as the neighbor dressed and dragged the deer back to his garage.

Needless to say, the defendant was quite surprised when Dale and Frank caught him red-handed in the garage. He promptly settled the matter on a field receipt.

DECEMBER 22—Deputies John Flory and Bob Schmitt join me as we serve several arrest warrants around the district, settle some fines, and investigate another incident. The pace may have slowed since the close of deer season, but our agendas are still full.

DECEMBER 26—The opening of late archery and muzzleloading season re-

news my patrol routes. Late in the day an urgent call requires my response to the Three Mile Island nuclear facility in Londonderry Township. Security personnel had just found a freshly killed doe on the lower end of the island. The facility requires tight security, is closed to public entry, and strictly forbids firearms.

As I arrive, security informs me that a pair of boats are cornered on the Susquehanna. The State Police have located the suspect's cars and were blocking their escape. A dam upriver keeps the boaters in check, and they hide somewhere between these two points.

Deer are grazing everywhere on the lower end of the island as the guard takes me to the downed doe. I can pretty well figure what has happened and suggest that he join me on a little walk. Soon we locate the pair of camouflaged jon boats idling in a backwater slough. Upon seeing us, the hunters begin to motor away. I gesture for the group to stop, but they ignore my signal and make a break for the opposite shoreline. With the aid of the nearby State Police helicopter and Lancaster County's Conoy Township police we're able to find the group of six fellows.

After a lengthy interview and subsequent hearing, the group is found guilty of numerous offenses—from license violations to fleeing from an officer and wanton waste of the deer.

DECEMBER 28—A deep, heavy blanket of snow muffles the landscape. The paralyzing storm provides a respite to reflect on the past year's experiences and events. I pause and look forward to the year ahead, but I'm snapped back to reality when I hear the distant hum of snowmobiles running on closed areas of SGL 211. I plod onward, following their tracks. The job never ends, only the duties change with the seasons.

I hope you've enjoyed our time together as much as I have. By now you realize life as an urban/suburban WCO is as unique and challenging as that of my big woods counterparts. The purpose of this journal was to enlighten you to the various duties, responsibilities and work settings of a conservation officer. I'm sure you'll agree, ours is a life experienced by few but dreamed of by many.

Good luck, good hunting, and I hope to have the pleasure of meeting you someday during one of our woodland walks.

IN THE PAST I have reviewed five or six books at this season, but limiting myself to so few titles seems a shame when there's so much good reading out there. This year I will try to present more books, all of interest to outdoor-oriented people—with a much better holiday shopping list.

Into the Great Solitude, by Robert Perkins. Henry Holt and Co., 115 W. 18th St., New York, NY 10011, 219 pages, \$19.95, hardbound.

In 1987 Robert Perkins canoed alone down the Back River through northern Canada. He encountered rapids, steep portages, foul weather, insect hordes. His book describes an outward journey—the land, with its plants and animals, including caribou, peregrine falcons, ptarmigan, wolves and grizzly bears—as well as an inner passage, an examining of his own personal conflicts and relationship with the natural world.

The writing is vivid: “Every second the blackflies are there batting, biting, buzzing. I open the wannigan, they’re in it. They’re in the tent. They’re in my pockets. It’s a sandstorm, except these grains want my blood.” Perkins says of the Inuit, the natives who inhabited the land around the Back River: “To them, the whole tundra was one river. The food currents on this land-river are the migrations of the birds, the fish, and especially the caribou.”

Appalachian Spring, by Marcia Bonta. University of Pittsburgh Press, Pittsburgh, PA 15260, 187 pages, \$9.95, paperback.

For 20 years Marcia Bonta has lived on the old Plummer Place on top of Brush Mountain south of Tyrone. Bonta is an accomplished naturalist and a delighted wanderer through the woods and fields of her central Pennsylvania home. Spring, she tells us, is her favorite time of the year, and her book splendidly presents to the reader the plants, animals, weathers and natural dramas of this season.

Through her perceptive observations, recorded in journal form, runs a

Thornapples



Chuck Fergus

strong respect for nature. “As far as we know,” she writes, “we are alone in our universe where only our small, finite earth can support us. To save the earth from destruction should be our primary concern. Nothing else matters if we destroy earth’s ability to sustain life.”

The Animal Wife, by Elizabeth Marshall Thomas. Houghton Mifflin, 2 Park St., Boston, MA 02108, 289 pages, \$19.95, hardbound.

Ever wonder what it must have been like to be a hunter, armed only with a flint-tipped spear, in the Ice Age?

In this novel, anthropologist Elizabeth Marshall Thomas convincingly places the reader in northern Europe during the Paleolithic era. While out hunting, a youth named Kori comes





This year's embroidered Working Together for Wildlife patch features the red fox, one of the commonwealth's most attractive animals, and is \$3, delivered. As in past years, proceeds from Working Together for Wildlife are used to support nongame research and management projects. Order from the Game Commission, Department AR, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

upon a woman swimming in a pond. Acting on impulse—perhaps on instinct—he captures her and makes her his wife. From this rash deed unfolds a story that totally involves the reader in day-to-day life and conflicts of a world very different from ours—but a world and a setting that helped mold us and make us what we are today.

Thomas's previous bestselling novel, *Reindeer Moon*, also set in Ice Age Europe, has recently been reissued in paperback (\$4.50) by Pocket Books, 200 Old Tappan Rd., Old Tappan, NJ 07675. It's an even better story than *The Animal Wife*.

Our Nature, by Bil Gilbert. University of Nebraska Press, 901 N. 17th St., Lincoln, NE 68588, 267 pages, \$7.50, paperback.

Fifteen essays by a Pennsylvania-based writer on topics as various as rattlesnakes, oyster mushrooms, falconry, the Arctic explorer John Franklin, grizzly bears, foraging, and the West Branch of the Susquehanna River. *In*

God's Countries is an earlier Gilbert collection offered in hardcover by the University of Nebraska (\$17.95), a similarly excellent and eclectic gathering of nonfiction, most of it published previously in *Sports Illustrated* and *Audubon*. (Don't miss "The Missouri Kid," about a moose that wandered from Minnesota all the way down to the soybean country of Missouri, some 600 miles south of conventional moose range.)

Pheasant Hunter's Harvest, by Steve Grooms. Lyons & Burford, 31 W. 21st St., New York, NY 10010, 180 pages, \$18.95, hardbound.

Steve Grooms hunts pheasants in the Midwest. In this lively, educating, spontaneous account, he writes about dogs, guns, and tactics—and, of course, about the ring-necked pheasant and the various emotions that this great game bird arouses in the men and women who hunt it.

A particularly gripping chapter is "A Cold, Lonely Death," in which Grooms is forced to leave his old beloved springer spaniel, Brandy, perched on a muskrat house in an icy swamp. I also enjoyed "A Land Shaped by Wind," about the Missouri Breaks country of South Dakota, which ends poignantly in a Sioux cemetery on a hill on the Rosebud Reservation.

Made for the Country, by Robert Kimber. Lyons & Burford, 31 W. 21st St., New York, NY 10010, 179 pages, \$17.95, hardbound.

Did you know that a well-made dustpan "slithers under dirt and doesn't make you keep chasing yourself backwards around the kitchen floor"? That "the difference between a bad haircut and a good one is about three days"? That a 3/8-inch polyester rope with a tensile strength of 3,340 pounds and a safety factor of 10 will have a working load of 340 pounds?

Made for the Country is a collection of pragmatic, witty, often poetic essays about all sorts of useful rural things including brooms, tire chains, cartop

racks, bird feeders, insect repellants, snow shovels, sickles, rope, garden hose ("Long, Thin Buckets"), outdoor clothing, peaveys and pulleys, chore boots and camping saws, hats and hammocks. Robert Kimber, a longtime contributor to *Country Journal*, lives and works on a farm in Maine; his book painlessly delivers the kind of welcome information that makes living in the country less demanding and more efficient.

A sampling of Kimber's poetry (regarding raking leaves): "It is outdoor activity at two of the year's sweetest times: the last warm days before snow comes and that first powerful surge of spring when the snow has been gone for only a few days, and the earth starts to rise like bread in the heat of the sun."

The book's only flaw is a lack of illustrations which would have helped the reader visualize a tool's design, a work technique, or an esoteric piece of equipment.

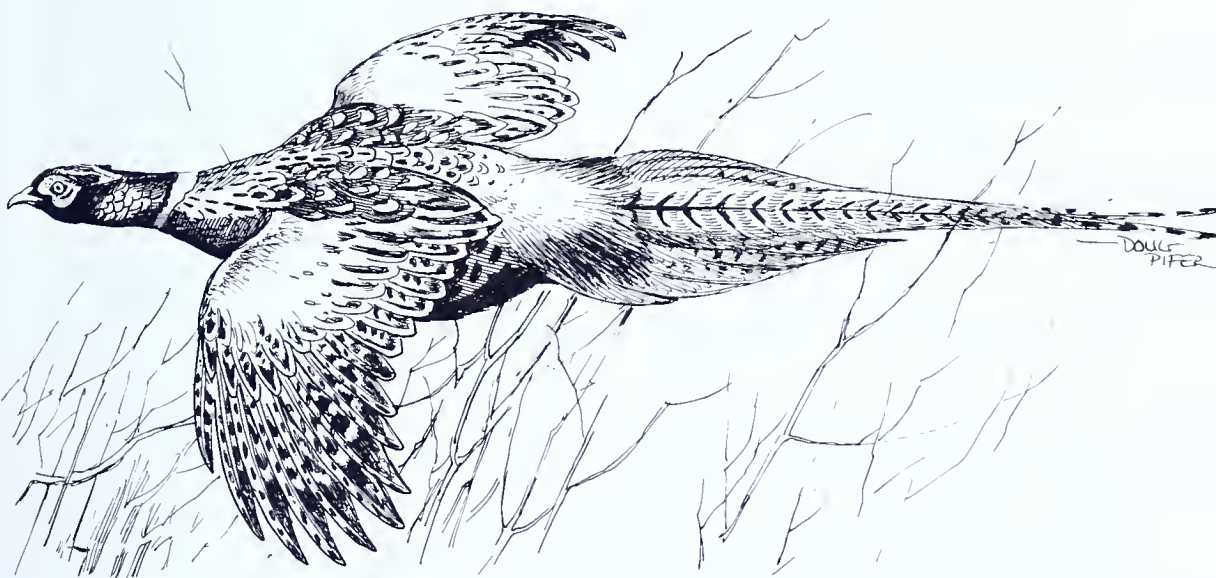
Eminent Dogs, Dangerous Men, by Donald McCaig. HarperCollins Publishers, 10 East 53rd St., New York, NY 10022, 212 pages, \$19.95, hardbound.

Eminent Dogs, Dangerous Men is about author Donald McCaig's travels through rural Scotland in search of the right border collie to bring back to

The *Wingless Crow* is a collection of 33 "Thornapples" columns by Chuck Fergus. The nearly 200 pages of entertaining reading will appeal to all those interested in our natural world. Order from the Pennsylvania Game Commission, Dept. AR, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Price is \$10, delivered.

his Virginia sheep farm. The "eminent dogs" have names like Roy and Holly and Bute and Cap and Flint: competitors on the British sheepdog trial circuit, but also, and foremost, superior working dogs. Border collies have been bred by shepherds since the 17th century to herd sheep; they are fast, lithe, intense, courageous, and above all, utterly honest. The "dangerous men"—Stuart Davidson and David Sutherland and John Angus McLeod and John Templeton and others—are keen competitors who can communicate instantly and deeply with their dogs. Whether working sheep on a Highland hillside, or maneuvering them around the obstacles and into the pens on the trial grounds, handler and dog must have total faith in each other.

The book explains the intricacies of getting sheep to move from place to



place. It takes us deep into the rugged Scottish landscape. It informs us about history. It introduces us to the unforgettable characters (in inns, in the Beer Tent at sheepdog trials, on the precipitous slopes of highland farms) with whom McCaig rubs elbows over the course of his quest. And it explores the ancient relationship between human and dog.

The writing is clean, descriptive and without pretense. McCaig is at his con-

siderable best when describing people and their appearances, mannerisms, and foibles, which he does in a gentle and humane way. Although nonfiction, **Eminent Dogs, Dangerous Men** is as enthralling as a good novel. I haven't read such a fine book in a very long time.

(Readers may wish to track down a copy of McCaig's earlier novel, *Nop's Trials*, about the vicissitudes of a border collie stolen from his master.)

Fun Games

“Understanding Firearms”

By Connie Mertz

Fill in the blanks below with the correct answers. Match up the letter with the numbers below to discover a special message from GAME NEWS.

1. A _____ usually prevents the gun from firing.
4
2. Name three general classes of rifle sights.
_____, _____, and _____.
2 8
3. The measurement of the bore of a rifle. _____.
5 3
4. The inside diameter of a shotgun barrel. _____
10
5. _____ is made up of the case, primer,
1 7
powder and bullet.
6. A kind of ammunition in which the primer is in the center of the cartridge.

9
7. Controls the shot pattern and most effective distance of the shotgun.

6
- _____!
- 1 2 3 3 4 5 6 3 7 8 9 1 10 8

Answers on page 62

Archery Assists

By Keith C. Schuyler

ADVERTISERS would have you believe that you cannot successfully shoot the bow and arrow if you don't equip yourself with a vast array of gadgets. Some items, such as wax and adhesives, are unseen; string silencers, brush buttons and the like are quite visible. None of them is necessary. The Indians somehow managed to get along without them. But, still, there are some accessories I wouldn't be without.

While none of us is going to use every assist on the market, there are some devices that fill specific needs and are worth looking into. The shooter's choices are limited in some cases because some bow manufacturers design accessories that can only be used on their bows. We're going to skip sights, arrow rests and releases because each of these aids is a story in itself.

You'll find some items are practically identical but sold under different labels. Patent rights can be purchased, and even original rights are protected for only 17 years, after which inventions become public domain.

There was a time when new items could be used or adapted to any basic product. The brush button is an example.

Configuration of a recurve limb is such that the jointure of the string and bow limb tip tends to catch on vegetation when carried in the field, which is annoying at best—dangerous at worst. A bit of brush or a stout weed can abruptly yank the bow. If that happens when the hunter is hurrying forward with a nocked arrow, in anticipation of an immediate shot, the sudden interference can jerk the razor-sharp broadhead into a hazardous position.

It didn't take long for some inventive



AMONG THE many accessories available to today's archers is the short stabilizer, above. This particular model provides additional weight and stabilization, and also functions as an arrow puller.

mind to come up with the brush button shortly after World War II. Although seemingly obviated by introduction of the compound bow, the brush deflector is still used on compounds such as the Oneida Eagle series. The button is enjoying a resurgence of popularity as more archery hunters return to recurves and longbows.

Far Cry

I've seen no evidence that brush buttons were used on working recurves of ancient Asiatic design. Perhaps brush was not a problem; much of the shooting was done from chariots or horseback—a far cry from Pennsylvania woods in October.

Another help for those shooting longbows and recurves is the bow tip protector for the lower limb. This short sleeve fits over the bow tip and under the string loop. It not only holds the string in position, it also provides protection for the nock end of the limb,





BRUSH BUTTONS are almost a necessity for longbow and recurve users. By deflecting weeds and limbs, as shown here, and by eliminating similar hangups, they function as valuable safety devices.

preventing damage to the tip and serving as a shield from moisture when the bow is rested on the ground.

Another addition to the string that some archers find useful for providing a consistent anchor point is the kissers button. This bit of rubber or plastic is fastened to the string at a point where it touches the lips or corner of the mouth at full draw. Original buttons had to be threaded on the string like a bead, but newer ones can be fastened around the string and locked into position by two brass rings similar to those used for the arrow nock locator.

Most Important

The most important string accessory is the arrow nock locator. The nock locator is a point on the bowstring that tells the archer, by sight or feel, where to place the arrow. It's vitally important that the arrow be located on the string at the same spot each time. The first locator, when proper position is being established, may be no more than a pencil mark. When a permanent spot is selected, a permanent locator is attached to the string.

In the early days, a spot was chosen

and the indentation in the string from repetitive shooting served as a locator. Later, a thickness of dental floss was wound around the string; the floss was then reduced to proper size by careful heating and impressing an arrow nock onto the raised portion. Some still use this method.

Perhaps far and away the most popular arrow nock locator today is the tiny split brass ring that is pressed into position on the string with a special tool or common pliers. Protection for the string is provided by a soft core in the locator.

Single nocks are popular with most shooters. They simply fit the arrow to the string below the locator and then lift up snugly against the nock. Some of us who shoot a two or three finger hold use two such nocks, separated just enough to accommodate the arrow nock itself. It's a more positive way of finding the correct position, especially under hunting conditions when you don't want to take your eyes off the quarry. Further, any drag or roll of the string tends to equalize upon release.

Even the string itself has undergone modifications from animal thong to flax to modern Dacron. Gone are the days when you could just order a 52-inch, 14-strand string for your recurve. Today's strings are measured according to Archery Manufacturers Organization standards. Strings are measured under tension. At zero tension, a string is about 1 $\frac{1}{4}$ inches short. If you're purchasing one from a local shop, take along your old bowstring to avoid confusion.

Compound bows seldom have strings removed by their owners except for replacement or bow repair. Both recurve and longbow strings are best loosened or removed when the bow is not in use to avoid having the bow "follow the string," or take a set in the direction of tension. That decreases draw weight.

CUSHION PLUNGER, as part of an arrow rest apparatus, can be adjusted to minimize arrow oscillations upon release. This can be especially helpful in correcting lateral errors in aiming.

All strings benefit from an occasional application of beeswax. Some of this is sold under company names in hand dispensers. But plain old beeswax will do a proper job at a lower price. When the string takes on a gray cast or tiny, fuzzy threads start showing along the main string, it's time to wax it.

String vibration can be detrimental because it accents the normal noise associated with arrow release. Depending upon alertness of the quarry and distance of the shot, the animal may "jump the string," moving before the arrow arrives. This can result in a poor hit or a complete miss.

A number of vibration dampeners have been devised to lessen this effect. Most common is a handful of rubber bands artfully assembled and tied between the bowstring's strands about halfway between the nock locator and the end of each bow limb. This home-made arrangement won't last as long as several commercial dampeners. These vary from durable rubber switches to a puff of closely tied lengths of yarn assembled into a ball. Some archers also use such devices on compound cables to quiet them.

There are lightweight bows that can benefit from the addition of fairly heavy stabilizers. Stabilizers are commonly seen on target shooters' bows. They vary from straight rods to ones that resemble steer horns or television antennas. This is a complicated choice best understood by experts on the target line.

For hunting, those who find weight stabilization useful are most likely to choose the short, heavy rod. A novel stabilizer, illustrated here, doubles as a broadhead puller. It consists of a slender rod that attaches to the bow and onto which a sliding weight is added. The weight is fixed at the desired point by means of a set screw that is tightened by the fingers. The opposite end



of the rod is threaded to accept any threaded arrowhead.

By removing the entire unit and fastening it to a stuck arrowhead with shaft removed, the weight can be slid sharply against a stop on the stabilizer bar to remove the head. Of course, to use it in this manner, the weight's position should be marked so it can be returned to the desired spot for shooting.

Handy Gadget

Regardless of what bow the hunter chooses, an arrow holder is one of the handiest gadgets available. It fastens to the bow with pressure sensitive tape or by affixing it to the pressure button mount. The arrow is held under tension until back pressure is applied to the string; the device releases with practically no visible movement. It permits the archer to stand or hang the loaded but not drawn bow within easy reach. Not only does it relieve the strain of holding a sometimes heavy bow, it frees the bow hand for warming on cold days.

Archers who have trouble holding their bows perfectly vertical can be helped by a bubble level that mounts on the sight bar. Only longbow shooters



STRING SILENCERS dampen vibrations that create noise, and noise carries to a deer faster than an arrow, which can result in a miss—or, even worse—a poor hit. The key to getting the most from the archery accessories available is to learn how to properly use them.

known as the Berger button, is now used in variations by many target archers and bowhunters. At one time some thought a centerfire bow would eliminate the need to further dampen oscillation of the arrow shaft from the forces created by release. We attained a centerfire bow, but retained the problem.

A pressure cushion can be adjusted to lessen the effect. Some arrow rests do incorporate a spring arrangement that accomplishes to some degree the greater flexibility of the adjustable pressure button.

A caution is in order for hunters using any type of pressure button. Friction of the arrow shaft against the button can create a screech. A bit of petroleum jelly applied at points of contact should eliminate the noise.

An accessory's importance is determined by the individual's need and the use to which it's put. For example, cable blocks can be installed to limit your draw and let you know by instant resistance when you are holding "in the valley" of maximum letoff with a compound bow. Overdraws are available for those who can utilize them. Wrist straps, arm guards, shooting tabs and gloves, releases and a variety of bow quivers all compete for your archery dollars.

None of these archery aids is absolutely essential to score on a bullseye or an animal. However, many have proven their worth in making it more likely to happen. Archery accessories are helpful only if you learn to use them properly.

normally cant their bows. Others prefer a hold as close to vertical as possible. A few degrees off at release can be magnified into a miss downrange. A level shooting stance is not always easy under field conditions, particularly on a sidehill shot.

Good News

Once popular to protect the beautiful finish on exotic woods built into the riser section of bows, camouflaged limb sleeves have all but vanished. Bow makers have largely eliminated the need by adding a camouflage finish to production bows. And that may be good news because any addition to string or limb reduces speed to some degree, and a wet bow sleeve could make the reduction more serious.

A device made famous by Vic Berger,



MUZZLELOADERS have become very popular in Pennsylvania since the Game Commission first offered a special flintlock season for deer hunters in 1974. Here Lloyd Norris shows Don how to properly fill a priming pan. Norris recommends using just a small amount of powder in the priming pan.

Black Powder/ White Smoke

By Don Lewis

Photos by Helen Lewis

WHEN THE BUCK stopped some 50 yards distant, the hunter rested his Thompson/Center Pennsylvania Hunter flintlock against a beech tree and pulled the trigger. Much to his dismay, the only sound to break the morning air was the flint striking the frizzen. The hunter immediately knew his problem; moisture had saturated the priming powder. Shielding himself behind the large tree, he wiped the priming pan dry with a handkerchief and quickly recharged the pan with a pan charger.

He tried again; this time the powder ignited. The 50-caliber round ball

penetrated the buck's rib cage directly behind the shoulder, bringing the hunt to a successful end.

The flintlock system is vastly superior to earlier ignition systems, such as lighting the powder with a hand-held burning rope soaked with saltpeter and spirits of wine (matchlock), pulling





PERHAPS more so than with many other types of shooting, experimentation and practice are necessary to get the most out of black powder shooting. Finding a good patching material, left, and even chronographing loads, right, will let a shooter get the most from his primitive arm.

down a lighted wick (serpentine) into the priming pan, or sending sparks into the priming charge with a wheel (wheellock) that spun against a piece of iron pyrite. Yet, it's fair to say that literally thousands of Pennsylvania flintlock hunters have lost a shot due to moisture in the priming pan. It's probably a flintlock shooter's No. 1 headache.

Minor Controversy

There's always been a controversy over the discovery of black powder. Most historians credit Friar Roger Bacon, a 13th century German monk, with the discovery of the black dust, as it was called then. Others claim the formula was known in Europe around 848 AD, and it's possible the Chinese had the mixture before that.

Bacon felt his discovery was far too dangerous for mankind, or at least for general knowledge. He tried to hide the formula in a complex code. His efforts were to no avail; by 1267, Bacon watched children playing with fire-crackers. Gunpowder had arrived and was here to stay, although it wasn't until the 14th century that the violent black dust was used for military purposes.

The mixture of charcoal, sulphur and saltpeter gave the black dust the three properties needed in all gunpowders.

First, when ignited, it burns by itself without the aid of outside air. Second, it burns rapidly and gives off large amounts of gas. Last, a considerable amount of heat is generated. It takes all three to make gunpowder an explosive force.

Other substances such as Thermite burn rapidly without the aid of outside air and give off heat. However, there is no gas and, therefore, no explosion. Saltpeter, which gives off oxygen, is the main ingredient in gunpowder. When mixed with two inflammable materials—charcoal and sulphur—the end result is an explosion.

Another consideration when dealing with black powder is controlling its burning speed. Burning speed, to some extent, determines the power or strength of black powder. The size of the granules determines how fast it burns.

The 1950 Lyman handloading manual says that the larger the granulation, the slower black powder burns. It goes on to say that large granules are harder to ignite, which is why very fine granules are used for priming charges. As the size of the granulation decreases, the strength of the powder increases—up to a point.

Strange as it may seem, extra fine granules (dust) do not burn quickly because all the spaces between the granules are filled, so it takes more time for flame to distribute itself and ignite the extra charge.

In the manufacturing process, the three ingredients in black powder are ground and mixed. The Lyman manual states some moisture is added and the mixture is "incorporated," which Lyman says is the most important process in black powder manufacture. Incorporation brings the ingredients into the closest possible contact so that each



particle of the resultant “cake” is composed of the three ingredients in the proper proportion.

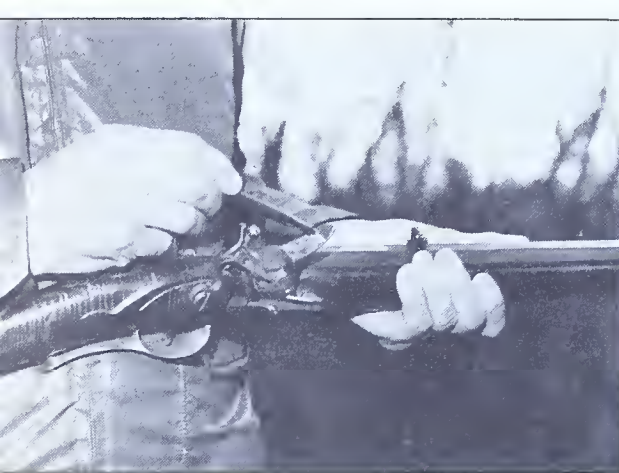
Granule sizes are governed by what I will call GO and NO GO screens, which have a certain number of meshes per inch. For instance, Fg must pass through a screen having 14 meshes per inch but not one having 16 meshes per inch. FFG sizes are 16 GO and 24 NO GO; FFFg, 24 and 46; FFFFg 46 and 60. For the sake of covering all bases, the Army uses a heavy Grade A-1 for use in saluting cannons. Grade A-1 must pass through a screen having 6 meshes per inch but must be retained on a screen of 10 meshes per inch.

Before leaving the subject of powder, let me dispel the rumors that other types of gunpowders can be used in muzzleloading firearms. Thompson/Center Arms Company, maker of Hawken percussion and flintlock muzzleloading rifles, says, “Make no mistake about it, black powder is the only propellant powder safe to use in a muzzleloading firearm.” The basic reason for using black powder relates to firearm design.

When used as a propellant, black powder generates a relatively low breech pressure. Replica firearms, even with their modern steel barrels, are not designed to withstand the high pressures produced by modern smokeless powder.

Thompson/Center says to think about this for a few seconds and you’ll understand why. The ignition hole in the nipple is a direct port into the combustion chamber. The high pressure of a smokeless powder charge would raise havoc with such an ignition system. The breech section of a muzzleloading barrel is sealed on the inside by a threaded plug. It lacks the exterior support supplied to the modern cartridge rifle by its strong receiver. While Thompson/Center Arms’ booklet mentions only the percussion outfit, the flintlock would fall into the same category. Take sound advice; use only black powder in muzzleloading firearms.

In Pennsylvania, the black powder outfit is basically a flintlock, primarily because of the state’s special, flintlock-only deer season. Yet there are thousands of black powder fans who hunt



TO INCREASE the likelihood of igniting the priming powder—and thereby eliminating one of the most common reasons for misfires—the flint should strike high on the frizzen to allow for more scraping surface.

everything from rabbits to deer (in the regular firearms season) with percussion shotguns and rifles.

History reveals that Marin le Bourgeois of Lisieux in Normandy invented the flintlock sometime around 1610. His design reigned supreme until a Scottish minister, Alexander John Forsyth, hit upon the idea of using fulminates. Fulminates are salts produced by dissolving metals in acids, which explode when struck by a sharp blow.

Percussion Cap

Forsyth used fulminates in a loose powder form in a pivoted magazine. This system was superior to the flintlock, but loose-powder fulminates had drawbacks. An English artist, Joshua Shaw, devised what we now call the percussion cap.

Shaw stored tiny amounts of fulminates in small steel cylinders that would explode when struck. He devised a nipple with a channel leading to the main powder charge. Placing a cylinder over the nipple and striking it with the rifle's hammer set off the main powder charge. Shaw eventually switched to copper, the final material used to make all later caps.

The flintlock didn't just disappear when the percussion cap was invented, but it was evident that the percussion cap's dependability, especially in wet weather, was too great to overlook. By the mid 1800s, the U.S. military adopted the new system for its troops.

It was learned around 1500 that

grooves in the bore made loading easier. At first the grooves were straight, and many experts think they were put there to collect residue. No one knows when or why spiral grooves came into being. It was known that setting feathers on arrows and crossbow bolts at an angle made them turn during flight, making them more stable. It's reasonable to assume some gunsmith decided a spinning ball would be more stable in flight. The originator of the rifled bore may never be known, but his efforts brought the rifle to even higher dominance.

Another major development came when it was learned that a greased patch wrapped around a smaller-than-bore-diameter ball was easier to load and made the rifle more accurate. Here again, history is vague on who discovered the advantages of the patched ball, but it probably occurred before 1600.

It's believed the patch was first used just to fill the gap between the ball and bore. Some refer to the gap as "windage." In other words, it acted as a seal to keep the gases behind the ball where they provide maximum thrust. It seems reasonable to believe the early experimenters soon learned the patch offered more than a filler.

A properly fitting patch keeps the ball from bouncing around and changing positions. When held tightly by the patch, it leaves the bore the same way each shot. The patch also grips the rifling and transfers the spin of the rifling to the ball. This means the thickness of the patch is important.

Using a very thin patch to make loading easier is defeating the purpose. A patch must be thick enough to fill the gap between the ball and the bore walls, and it must be tough enough to withstand the heat of burning gases and potential cutting effect of the lands. It's a matter of trial and error, and each shooter will have to find a suitable com-

bination. Several top flintlock shooters told me they use a thick patch for the first shot and a thinner patch for quick second shots to make reloading easier when the barrel is fouled.

When it comes to patch lubricants, a good many shooters use saliva because it's always available. Folklore gives credence to the use of saliva, but common sense tells us it will rust the bore. It's been proven that barrels can be pitted by continual use of saliva. In the case of an emergency, saliva fills the bill, but it's better to work a commercial lubricant into the patches and then store them for future use. It takes a little time for the lube to saturate and soften the patch fibers. Shooters should experiment to find the lube that works best for them.

Loading a flintlock is not difficult, but certain rules should be followed. First, do not reload immediately after firing. A piece of burning patch or powder from the previous shot could set off a new charge as it is poured down the muzzle. Here's a safe method.

Make sure the bore is clean and dry. Place the rifle butt on the ground and push the muzzle away from your face. Don't pour the charge directly from a can or powder horn, especially after a shot. Instead, use a graduated charging

measure. To make sure the powder has settled into the chamber and also into the counterbored section of the touch-hole bushing, bump the lock area several times with the heel of your hand.

Next, place a lubricated patch over the muzzle with the grain up. Place a pure lead ball in the center of the patch with the sprue up. The sprue is the flat mark made when the excess lead was cut from the ball in the mold. Some commercial balls do not have a sprue mark. Just center them on the patch.

With the stubby end of the short starter, shove the patch and ball into the muzzle. This might require a brisk slap on the short starter. At this point, cut off any excess cloth protruding above the muzzle. Using the long end of the short starter, push the patched ball a few inches into the barrel, then use the ramrod to push it firmly down on the powder charge. Don't hammer or pound on the ramrod. This may deform the ball.

When the ball is firmly seated, mark a ring around the ramrod at the muzzle, and seat all subsequent balls to that depth. Don't leave a gap between the ball and powder. (Such an arrangement will result in very high pressures.) After that, put a little priming powder in the priming pan, and you're ready to shoot.

PRIOR to his retirement, Jacob Sitlinger was presented with the National Guard's "National Guard Eagle," and with the Pennsylvania Commendation Medal, as a tribute to his cooperative efforts in coordinating Guard training exercises on State Game Lands. Lt. Col. Jim R. Rusnic, left, commander 876th Engineer Battalion, and Maj. Martin J. Coheir, right, executive officer, made the award presentations.



In the wind

j. scott rupp



It would cost Michiganders at least \$11 million to clean trash from Lower Peninsula public forests. That's if the clean-up began immediately, reports the North Woods Call. But every day more garbage is being dumped. Forest managers blame the crisis on several factors, including the closing of local dumps, high dumping rates, convenience packaging and the proliferation of junk mail.

The average age of hunters is increasing, according to a National Shooting Sports Foundation survey. The typical hunter is 42.5 years old, compared to the 37.7 average determined in a 1986 NSSF poll. That increase reflects the aging of the country's population as a whole, NSSF says. The survey also noted women now comprise 7 percent of the hunting community, up from 4 percent in '86.

Two Mississippi counties recently experienced outbreaks of anthrax in their white-tailed deer populations. Officials are asking residents to report any sick or dead deer to conservation officers. The bacteria responsible for anthrax is found in the soil; changes in soil moisture from flooding or drought can increase the bacteria's incidence in spores that are eaten by grazing animals. Anthrax can be fatal to deer and livestock.

North Carolina's mountain ruffed grouse population is on the rise, as indicated by flushing and harvest rates. In the 1990-91 season, hunting parties flushed one grouse per 45 minutes — a 30 percent increase over the previous year's rate. A bird was harvested for every 5¼ hours of hunting — up from one bird for every 6¼ hours.

Wisconsin wildlife officials plan to study the state's bobcat population to determine whether the species is threatened. Current regulations restrict specially permitted hunters and trappers to take one cat per year.

A plant pathologist with the U.S. Dept. of Agriculture recently identified a parasitic fungus as the cause of a disease killing native stands of flowering dogwood trees in the Northeast. The scientist, quoted in the September *Journal of Forestry* magazine, said identifying the organism is the first step toward solving the problem.

Arkansas game authorities want farmers and wildlife enthusiasts to be on the lookout for purple loosestrife, a nuisance weed making its first appearances in the state. The plant, says a wildlife biologist, "can single-handedly destroy wintering waterfowl habitat and render a wetland useless."

A new provision in Montana's game code makes it illegal to shoot at, or attempt to shoot at, wildlife facsimiles used by law enforcement personnel. The law is designed to increase the likelihood of successfully prosecuting game law violators.

Answers: 1, safety; 2, open, peep, telescopic; 3, caliber; 4, gauge; 5, ammunition; 6, centerfire; 7, choke.
Special message: Merry Christmas

By Betsy Maugans

ANOTHER VIEW

Ranking Royalty—Linda Steiner JAN
Random Thoughts—Linda Steiner FEB
It's Only Natural—Linda Steiner MAR
Saying Cheese—Linda Steiner APR
A Squirrel Hunter's Heaven—
Linda Steiner MAY
They're Stylish, Too—Linda Steiner JUN
To Each His Own—Linda Steiner JUL
A Vanishing Act—Linda Steiner AUG
There for the Watching—Linda Steiner SEP
Tangible Reminders—Linda Steiner OCT
Adventures in Dining—Linda Steiner NOV
How Not To—Linda Steiner DEC

ARCHERY

Aquatic Arrows—Keith C. Schuyler JAN
To Send the Shaft—Keith C. Schuyler FEB
Scent Scene—Keith C. Schuyler MAR
Anti Archers—Keith C. Schuyler APR
Parlor Practice—Keith C. Schuyler MAY
Keystone Considerations—
 Keith C. Schuyler JUN
Start Sometime—Keith C. Schuyler JUL
Indoors With PSAA—Keith C. Schuyler AUG
Hunting for Score—Keith C. Schuyler SEPT
The Edges of Day—Keith C. Schuyler OCT
Keeping Comfortable—Keith C. Schuyler NOV
Archery Assists—Keith C. Schuyler DEC

CONSERVATION EDUCATION

In the Wind—J. Scott Rupp ALL MONTHS
PGC Annual Report 7/1/89-6/30/90 JAN
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